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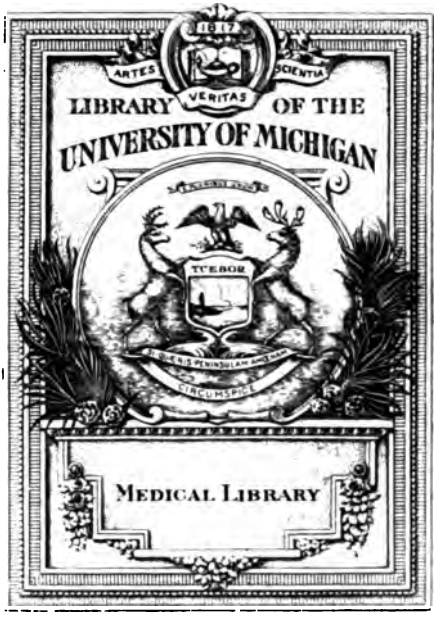
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JAMES F. McREE, M. D.,

Born Nov. 28th. 1794, Died Aug. 9th, 1859.

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ORIGINAL COMMUNICATIONS.

TWO LECTURES ON IRITIS.

By J. H. CLAIBORNE, Jr., New York.

(Clinical Lectures, delivered at the Polyclinic Hospital, New York.)

[No. 1.]

GENTLEMEN :—I will talk this morning on a subject which is of particular importance to you, for it is a matter in which ignorance can do much harm and knowledge much good; this subject is

IRITIS.

Before going into the consideration of the subject, it is well for you to enter into the anatomical relations of the eye, otherwise you will not be able to understand the disease or the treatment. You

will recollect that where the optic nerve comes into the eye-ball, there are two sets of blood-vessels, known as the long and short ciliary arteries; you will remember that they pass into the eye-ball between the choroid and the sclera and that they run forward up toward the region of the ciliary body and the iris, and, having arrived there, they form a circular or ring-like anastomosis, which constitutes an outer or greater iritic circle. From that greater circle there pass off numerous small blood-vessels, arteries, which, passing down into the subjacent tissue, form a circle which is known as the lesser iritic circle. This lesser iritic circle is composed of extremely delicate blood-vessels, which lie in the stroma, mixed with other elements. Now, as we know very well, inflammation is accustomed to be intense where there is a large amount of blood, or the elements of blood (there is such a thing as inflammation of the cornea, though there is no blood in the cornea). In addition to these blood-vessels there are numerous nerves, ciliary nerves, that form a delicate net-work through this tissue; there are also numerous muscular fibres, some of which are supposed to be dilating fibres, but this has never been proved; indeed, it is commonly supposed that the human iris not only contains dilating fibres, but it is a question to my mind whether they ever existed. Certain it is that this iris is a most wonderful substance, made up of fine connective tissue, muscular fibres, blood-vessels, nerves and pigment.

We are accustomed to regard the beauty of an eye by the color of its pigment; but allow me to say right here that the color of the iris is not the color of the pigment; the color of the eye is changed by the expression of the face, largely by the lid and also by the iris. The most beautiful eyes are those which are constantly changing color as the expression of the face changes. The pigment which lies in the eye, is placed there for the purpose of obstructing peripheral rays of light; the pupil has been put there by the Creator to allow enough light to enter to give an exact image; when the iris is small and the pupil dilated, the color is more or less changed; nervous persons have pupils that dilate with great rapidity; black eyes are generally small and the pupil is never dilated. So, the color of the eyes is not due to the color of the pigment, for you do have blue pigment, but the pigment is so arranged that a certain phenomena takes place, giving character to the eye, blue, black or brown. This phenomenon is known as

"interference." If you dissect a pig's eye, the posterior or uveal surface of the iris can be stripped off with the choroidal pigment, which covers the entire back of the eye, like the back of a photographer's camera. Suppose such a structure as this were to become inflamed, every physiological constituent must necessarily undergo a certain change. Let us take any one of the characteristics I have spoken of; suppose one eye is perfectly clear and the other is inflamed, iritis has been set up, what would be the symptoms or signs of inflammation? The healthy eye is perfectly clear, the other is intensely injected, so the first symptom of iritis is injection; the healthy iris is a clear gray, the other is dull and has a leaden appearance, so the second symptom is modification of color; this is one of the most prominent symptoms; you all know that the muscular system is of such a character that the pupil is constantly contracting and relaxing, so much so that it has been impossible to get the physiological size of the pupil, changing as it does according to the amount of light; but in iritis this action is much modified; the pupil may contract with great rapidity and remain so, but it will not respond to light, so modification of the muscular action is the third symptom. The pupil is nearly always contracted in iritis; it is caught in a condition of contraction; exudation is thrown out, and it is retained in that position; the blood-vessels become engorged and throw out serum and lymph, and sticks to the face of the lens behind it, so that it is impossible for it to move. This lymph becomes dissolved in the anterior chamber, the aqueous humor becomes dirty, and, if you throw oblique light into the eye, this will be recognized at once and the diagnosis made, so we can add *dirty anterior chamber* to the list of symptoms. On the posterior surface of the cornea you may see little drops or beads, or condensed steam.

Whenever you see around the cornea numerous blood-vessels running over the sclera toward the cornea, like the rays of the sun, you may know for certain that, if there be no iritis there, the deep structures are affected, the deep blood-vessels are involved. There are two layers of blood-vessels, the superficial, which are tortuous, and the deep, which are straight, and of which you take no notice unless the eye is congested; so, when you see a pink zone around the cornea, with straight blood-vessels running toward it, bear in mind that there is an inclination of that eye to have iritis. Con-

junctivitis presents a red ball, a uniformly red ball; in iritis the ball is pink, a redness which is not so intense, and white can be seen between the interstices of the vessels; conjunctivitis is accompanied with profuse discharge, while iritis is never accompanied with great secretion nor with the burning that is complained of in the former disease; there is pain around the eye and down the nose—great pain when you touch the eye ball, and this is another pathognomonic sign. For this reason, it is well to get in the habit of taking the tension of all eyes. The pain in iritis is very severe, and is apt to be much worse at night-time, though the cause of this is unknown. It has been thought that it was due to the supine position, but I have had patients sit up all night and found the pain just as bad; so that I am convinced that it is not due to that.

The etiology of this disease is obscure; we know that it occurs most frequently where there is some constitutional taint, such as syphilis or rheumatism; it also comes from cold. I am not one of those men who attribute everything to syphilis which did not get better under anti-syphilitic treatment; but there are certain species of iritis which are syphilitic, among them is plastic iritis, where much exudation is poured out, but there is also much exudation in rheumatic iritis, or spongy iritis, in which a cloud is seen, like a piece of sponge or cotton, in the anterior chamber; it is sometimes so dense that it hides the lens. That form of iritis in which beads appear on the cornea are nearly always due to rheumatism, so you can exclude syphilis in those cases. It is said that you can always attribute the disease to syphilis when the inflammation of the iris is excessive, but I do not think you can.

I have spoken thus far of acute iritis, but there is such a thing as chronic iritis, which, of course, was once acute, and has become chronic owing to the fact that the adhesions binding the iris have never been broken up; the inflammation subsides, but the adhesions remain; then some cause will set up inflammation again, and the eye will attempt to pull the iris free of these adhesions; this will happen again and again, and is termed recurrent iritis, which is a very unpleasant thing. Rheumatic iritis is very apt to be recurrent.

Secondary iritis is induced by extension of inflammation of some other part of the eye, thus there may be chloroido-iritis or kerato-iritis. Iritis is generally primary. Little can be done for a chronic iritis.

There is another form of iritis which is very rarely recognized, i. e., gonorrhœal iritis. I do not mean that gonorrhœal pus is inserted into the eye, but that the urethral discharge is accompanied by an inflammation of the iris; it differs in character from the syphilitic iritis, in that it is not so severe and that there is less exudation. You will be able to recognize it when you learn that the patient has had a gonorrhœa; it is very often associated with rheumatism of the knee and gonorrhœa; bear in mind the fact that there is such a thing as gonorrhœal rheumatism.

[No. 2.]

TREATMENT OF IRITIS.

GENTLEMEN :—This morning I wish to say something about the treatment of iritis, the subject of which we talked last time. Perhaps you all think you can treat iritis as well as anybody else, but it is one of the most important things in ophthalmology, as the results show. Ophthalmologists are often called in consultation in which the physician has made a diagnosis of conjunctivitis, apparently because the eye was red, and he will be surprised to see that the eye-surgeon will diagnose iritis and adopt a course of treatment entirely different from his. A year ago I was called in to see a case where the diagnosis had been made and the eye treated with boracic acid, simply because the practitioner had heard that boracic acid was good in all diseases of the eye. Do not imagine for a moment that you can treat any disease of the eye without making a careful diagnosis. If you make use of the oblique illumination, and know how to use it, it becomes an easy matter to diagnose iritis. The dull, leaden appearance of the eye, the steamy cornea, injection of straight blood-vessels, running towrrd the iris like the spokes of a wheel towards the hub, the pupil bound down and not responding to light, tenderness on pressure—these are things which you must bear in mind.

Some form of rational treatment must be adopted at once; first, to relieve the pain, then to cause these deep-seated blood-vessels to empty themselves; to clear the cornea and to dilate the pupil and take the pupil away from the lens capsule. Last week I tried to draw for you, in a rough way, the position of the lens behind the pupil, and you will remember that I told you that when this iris

becomes inflamed and thickened lymph is poured out, which binds the iris to the anterior surface of the lens; you will discover this by throwing oblique light into this eye. In view of the fact that the lens is shaped as it is, the iris must lie closer to the lens at the pupillary edge than anywhere else, and in its contracting it sometimes touches on the lens. This lymph, which is extremely sticky and tenacious, will hold the iris against the anterior surface of the lens and a condition results which is known as spurious cataract. Hence, when a surgeon talks about spurious cataract in a paper, do not imagine it is necessarily a permanent thing, for he means that exudation has been poured out and that the anterior surface of the lens, corresponding to the size of the pupil, has been covered up by this exudate, so that no light can enter. But a man with such an eye is just as blind as if a knife had entered his lens.

The adhering of the iris to the lens is the main point to be guarded against, and it can be prevented if the disease is recognized in the beginning, for then the iris will recede and the eye become normal. Whenever you see an eyeball that has those straight sub-conjunctival blood vessels injected you will know that the larger iritic circle is intensely congested; that the smaller blood-vessels that branch off from it are on the point of becoming congested. The larger circle is congested first and is the red flag of danger, from which you must take your cue; then it is only a matter of a few hours when the disease will declare itself. Whenever you see this use a certain remedy; whether it gives discomfort to your patient or not, you know that it will do good. This remedy is atropine.

The sulphate of atropine, which is, as you know, the active principle of belladonna, has marvelous effect in iritis; it paralyses the third nerve, not the entire nerve, but those fibres that supply the pupil and the muscle of accommodation. Now, if atropine were to have a paralysing action on all the fibres of this third nerve a condition would result which is known as ophthalmoplegia externa. It is fortunate, then, that atropine has this selective action upon certain fibres. Atropine also contracts the blood-vessels; they have large muscular coats and the blood is squeezed out into the venous channels of the eye—the eye is put into a state of physiological rest.

Sometimes, after using atropine, the pupil will dilate in a ragged

way. Now, it is necessary to get this eye in a condition in which you can dilate it. Don't imagine that any pupil, when inflamed, can be dilated, for it is at times very difficult. Nor can you use atropine in all cases, for some people complain that it makes the face flush and causes the eyelids to swell. It has been shown that the extract of belladonna leaf is good when atropine cannot be used, and I know surgeons who use the alcoholic solution, but it is very irritating and an aqueous solution is better. Duboisine is another agent that can be used, and is especially good when combined with atropine; cocaine is used also, but is more of an anæsthetic than a mydriatic. All of these remedies seem to possess anæsthetic properties, for patients will often be relieved from pain and photophobia before the remedy has had time to paralyze the muscle of accommodation. Atropine is recognized as the strongest and most certain agent we have to dilate the pupil. I have known general practitioners who recognized the disease with excellent judgment and prescribed atropine, but the strength of the solution was not great enough to do any good. I have known them to prescribe 1 grain to the ounce, having read that in a book written years ago perhaps. If you use atropine, use at least 4 grains to the ounce, 1 grain to 2 drachms. I have used it even stronger than that—8 grains to the ounce—but am cautious about the number of drops I put in the eye. Occasionally I have used as many as 10 or 15 drops, inside of three or four hours, with the only bad effect of drying the throat somewhat. Of course you must be on your guard when using that strength; keep the patient in your office under observation for some time; do not give him the atropine, telling him to put in a drop every two or three hours, and leave him, for when you go back you may have a case of belladonna raving. This is a matter of the greatest importance. I am accustomed to prescribe a solution of atropine and one of cocaine, the bottles marked No. 1 and No. 2, and I leave directions, after I have tested the patient's ability to stand it, to have a drop of the atropine put in the eye in an hour, and an hour after that a drop of the cocaine, and so on; or else I use 1 grain of atropine in 2 drachms of a 4 per cent. solution of cocaine. Cocaine is of great use, for beside its antiseptic effect, it does away with the sensations of heat which is complained of, and assists the mydriatic action of the atropine. If you have the patient in your office, put in 1 drop of atropine;

five minutes later put in a drop of cocaine; five minutes later another drop of atropine, and so on until you have put in six drops of each. Never put in but one drop, for the conjunctival sac will not hold more.

In addition to these remedies, water is of value in iritis. Tell your patient to bathe the eye with hot water—not warm, but as hot as can be borne. Do not use cold water, for it will make the pain worse. Bathe the eye constantly, using a piece of absorbent cotton, or have an assistant ring out pieces of cotton in hot water and apply them to the eye, changing them often; this will give relief and increases the action of the atropine.

In addition to atropine, cocaine and hot water, there is a remedy which is of as much importance as anything, namely, the application of leeches. In clinics you will find that surgeons rarely order leeches, because leeches are hard to get and the patients are unruly, but I do not know a better thing to relieve this inflammation than leeches. I remember a case of syphilitic iritis which came to me; the iris was bound down; I sent the man to a drug store, where leeches were applied, and while they were sucking he fell asleep and did not wake for some hours; it was the first sleeping he had done for four nights.

The manner in which the leeches are applied is very important; do not imagine that you can put them anywhere, though I have known them to be applied way down on the cheek, or up under the hair, and even on the conjunctiva itself. The point of predilection is where the blood-vessels come out of the orbit at the temporo-malar formina, just over the edge of the orbit in the temporal fossa, in a line with the outer canthus. By putting the leeches there you take away blood directly from the orbit, it seems to diminish the supply of blood that goes to the eye, and the sensation of fulness and over-distension is relieved at once. It is best to go to the drug store with your patient and apply them yourself, for you cannot be sure that it will be properly done.

There is another remedy, which can be made use of in large cities, but not in the country—the Turkish bath. The system is relaxed by the alternate heat and cold, and the action of atropine is much increased. I have tried this with success and with failure; the case in which I obtained such good results with leeches was first sent to take a Russian bath with no good effect.

So much for local treatment, but nothing is more important than the systemic treatment in iritis. As I told you in the last lecture, the principal causes of iritis are syphilis, rheumatism and gonorrhœa. In syphilis the treatment par excellence is the mixed treatment—a prescription something like this: biniodide of mercury 1 grain, iodide of potassium 4 drachms and 4 ounces of water, a teaspoonful to be taken four times a day if the person is robust; should it cause intestinal trouble, it can be taken only three times a day, until the teeth are touched. The proto-iodide is specially good in iritis when it is associated with the secondary symptoms of syphilis, but in the old cases where the symptoms return, the mixed treatment gives the best results. Calomel and bluemass are undoubtedly used, and you can make use of any form of modification of this treatment which you think advisable. Do not imagine, however, that every case of iritis is due to syphilis and that you are going to cure it with mercury. There is such a thing as rheumatic iritis, and in cases of that kind you must drop anti-syphilitics and make use of some simple rheumatic treatment. The best results are obtained from the salycilate of soda, and, in cases where there is so much spongy exudation that nothing can be seen, after a few doses of 10 or 15 grains, great improvement will be noticed. Other things may be as good, but when I mention one or two more remedies it is because I have gotten the best results from them.

All cases of iritis have a limited course. You may modify the pain and save the eye by dilating the pupil in time and giving proper medication, but iritis has a definite history and a definite course, and it will certainly run that course about three or four weeks.

You will meet many cases of iritis in which you cannot dilate the pupil, and, at the end of three or four weeks, the pupil remains bound down; an eye like that is of little use to its owner; he is going to have recurrent iritis all his life, especially if he has had syphilis or rheumatism.

I wish to mention one other point with reference to the pain in iritis. These patients suffer intensely at night, as I have stated, and I think it is wrong for a surgeon to stand by and do nothing to relieve the pain. I give hypodermic morphine if necessary, but some patients will sleep well after 20 or 30 grains of antipyrin. An eye will get better at once if you put the patient to sleep, instead of letting him get worn out with pain.

JAMES FERGUS McREE, M.D.

(A Biographical Sketch, with Portrait.)

By Thomas F. Wood, Wilmington, N. C.

Dr. James Fergus McRee was born at "Lilliput," his father's plantation, fourteen miles below Wilmington, November 18th, 1794, and died of quinsy in the latter town on the 9th August, 1869.

He was one of the four sons of Major Griffith J. McRee, an officer in the American army during the Revolutionary War. His mother was Ann Fergus, the daughter of Dr. John Fergus, a native of North Carolina, of Scotch extraction, a graduate of the Edinburgh Medical College, and afterwards a surgeon in Gen. Braddock's army.

Major Griffith J. McRee was born in Bladen county, North Carolina, and was the son of Samuel McRee, an Irish emigrant from county Down, Ireland. He was a Major of cavalry in the Continental line, and when the war of 1776 ended he was a Colonel by brevet. He was in the Southern campaigns with Green and Howe and others, receiving the regular appointment of Captain of artillery 2d June, 1794, resigning in 1798 to accept the appointment of Collector of Revenue for the district of Wilmington. He died in Smithville (now Southport) 30th October, 1801.

Dr. McRee's brothers were Col. William McRee, a distinguished engineer officer in the United States Army,* who was the eldest.

*Colonel William McRee, born in Wilmington 13th December, 1787, was the son of G. J. McRee and Ann Fergus. His father (and so, of course, Dr. James F. McRee's) was the child of an Irish emigrant, was a native of South Carolina, and removed in early youth to North Carolina. In 1803 he was appointed by Colonel Williams, Chief of Engineers, to West Point, he waiting for the lad to get his outfit, and carried him with him to West Point. His warrant as a Cadet in Regiment of Artillerists at West Point dates April 14, 1803, and Cadet in Corps of Engineers 1805. In 1807 he had command of the Engineer Department at Charleston, South Carolina, and in 1808 was made Captain. At the commencement of the War of 1812 he was made Major of Engineers. In 1813 he served on the northern frontier with Hampton and Izard. In 1814 he distinguished himself in an action near Falls of Niagara under command of General Jacob Brown, for which he was breveted Lieutenant Colonel. At the battle of Fort Erie he served with further distinction and was

Dr. Griffith J. McRee, an older brother, who entered the medical profession late in life (1824 or 1825), died in February, 1831, and was buried at "Lilliput," the paternal estate. Samuel McRee, born in 1801, the youngest brother, was a Captain in the United States Army, who died in St. Louis, Missouri, in 1849.

Dr. McRee, the subject of our sketch, was at the early age of 15 or 16 placed in the office of Dr. Nathaniel Hill. His opportunities for academic education were very small, his father dying when he was only 7 years old, but according to the custom of the day he went through a regular service in the office of a physician, who himself had served a regular apprenticeship under a Scotch apothecary near Glasgow, previous to entering upon his medical course at Edinburgh. It was during the time of this training in the doctor's shop (for in those days it was literally a drug shop and laboratory in a far more complete sense than the drug stores of to-day) that he pursued the study of Latin under the older student's in the office, and in that language he became quite proficient.

While the War of 1812 was going on, although Wilmington was a port into which the American privateersmen brought their captured prizes, and merchandize of various sorts was obtainable at that point, some of it being purchased and sent as far north as Philadelphia by wagons, there was at times a great dearth in some of the then indispensable drugs, so that young McRee found himself in these early student days assisting his preceptor in making calomel after the old process from the metal, a degree of the chemical art which we doubt if the best apothecary of to-day from Philadelphia to New Orleans would be skilled enough to undertake with confidence. Quinine did not come into use until many years later, and "*the* bark" and all of its various preparations, of which Huxham's tincture was the most elegant, was not yet a rival of the febrifuge simples of indigenous growth.

So early as December 9, 1800*, the Medical Society of North

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brevetted, after the campaign, November 30, 1814, Colonel. He served in the battles of Chippewa, Lundy's Lane, Fort Erie and New Orleans. After the war, April 15, 1815, he was sent to Europe to examine military schools, workshops, canals, arsenals, fortifications, etc., and to purchase books. maps and instruments.

*See Historical Note by Dr. Will. George Thomas, p. 75 Transactions Medical Society of North Carolina, Raleigh, May 1854.

Carolina offered premiums for the cultivation of the following drugs: "For the largest quantity of not less than 10 pounds of Fox-glove, ten dollars; for the largest quantity not less than 5 pounds of opium, twenty-five dollars (to be exhibited at the next meeting of the Society),* for the largest quantity not less than 10 pounds of rhubarb, exhibited to the Society in 4 years, thirty dollars; for the largest quantity of castor-oil not less than 5 gallons, to be obtained without heat, five dollars; and for the largest quantity not less than 50 pounds of senna, ten dollars."

So ran the patriotic sentiment of the profession of that day, that they must not buy or use imported drugs, but bend their energies to supplying their own needs. The list was a small one, to be sure, but not even burning patriotism could cause the most needed plants to grow in a soil and climate not suited to them. In the north D. Jacob Bigelow had led the profession in the study of indigenous medicines, and sixteen years after the North Carolina Society had made an effort to grow drugs, he had published his magnificent work entitled American Botany (1817). In (1817), the same year, Dr. W. P. C. Barton, professor of botany in the University of Pennsylvania, published "A Vegetable Materia Medica of the United States,"† and in the preface to his Flora of North America, 1821, he says: "That spirit of independence which forms the basis of character in a true American, has discovered its determination to emancipate itself from a scientific subjugation to foreign countries." This emancipation was to be largely in the discovery of indigenous plants possessing medicinal qualities.

*It was not done at the next meeting. (See above vol. of Trans.)

†This work, now quite scarce, appeared originally in six parts in board covers, each part containing colored drawings of ten plants, which were engraved and colored from original drawings made principally by the author. The drawing and engraving, and probably the printing, were done in France, although bearing a Boston publisher's name on the title page. "Barton's Vegetable Materia" has not quite the finish of its Boston rival, but has the appearance of being a production of the American press, having the imprint of M. Carey & Son, Philadelphia, the predecessor of the present old house of Lea Brothers & Co. Dr. Barton's work was quite a rival of Bigelow's, and both were great undertakings for their day. The explorations of Louis & Clark, he says in his preface, had "led to high expectations in every branch of science." Dr. Shoepf, who came to America with the German troops

The medical student of the early part of the century, when he was filling the measure of his struggle towards the highest grade in professional life, made medical botany his serious study, as by his expertness in detecting medicinal plants came the replenishing of his stock of drugs. To this branch young McRee assiduously applied himself, and in the admirable library* which he collected, only a fragment of which existed when it came under the eye of the writer, there was hardly a classical work of the earlier naturalists of which we did not find some volume.

When he was ready to attend lectures he had already made large acquisitions of knowledge by his apprenticeship of four years or more, which is indicated by the fact that he graduated at the New York Medical College, now the College of Physicians and Surgeons, in 1814, after one course of lectures.† Dr. John H. Hill,‡ a retired physician and a revered Honorary Member of the Medical Society of North Carolina, says that he and his friend Dr. Waters went to attend lectures in New York in 1829–'30; they took Dr. McRee's lecture notes with them, and they found the notes on Dr Hosack's lectures were nearly *verbatim*, as then delivered. Although his

during the Revolutionary War, publishe1 the first work on American medical botany, entitled "Materia Medica Americana potissimu n Requi Vegetabilis," and it seems to have been through this stimulus that the contribution of the elder Dr. Barton ("Collections for Essay towards a Materia Medica of the United States, 1798), was written Succeeding this "Coxe's American Dispensatory," "Thatcher's Dispensatory," and the "Pharmacopœia of the Massachusett's Medical Society," as Barton states, were all the accessible works on indigenous plants He earnestly solicits information from country practitioners of medicine residing in different parts of the United States to send him their observations upon medicinal plants.

*His library suffered very much by neglect even before his death As intimated above, he brought into his collection the choicest volumes, the natural sciences bearing a large proportion to medicine It was placed at the disposal of Dr. E. A Anderson after the civil war, and he presented all the desirable volumes to the Surgeon General s Library.

†The American Medical and Philosophical Register says that James Fergus McRee graduated 5th in the list at a commencement held Tuesday, May 3d, 1814; he presented a thesis on "Remittent Fever of Carolina"

‡We des re to make our acknowledgment to Dr. John H. Hill, now of Goldsborough, for the kind assistance he has given us in the preparation of this sketch.

acquirements enabled him to graduate in one session, he returned to New York and attended another course.

Dr. McRee entered upon the practice of his profession in his native town in 1814, succeeding his preceptor, Dr. Nat. Hill, who had retired, leaving his practice to Dr. James Henderson, his son-in-law, and his young friend McRee. Dr. Henderson removed to Raleigh, thereby giving Dr. McRee the leading practice in the town.

He was married at Rocky Run, near Wilmington, to a niece of Dr. Nat. Hill, November 14th, 1816, and had two children—Dr. Griffith J. McRee, author of the "Life and Correspondence of James Iredell," and Dr. James F. McRee, Jr., for years a successful practitioner in Wilmington, and a surgeon in the Confederate Army.

THE YELLOW FEVER OF 1821.*

Dr. McRee was 27 years of age when he faced the epidemic of yellow fever of 1821. This was a very severe visitation. The period of incubation of this epidemic was from the 12th of July

*Wilmington in 1821 was a small village of 2,500 inhabitants, doing a considerable commerce with the West Indies. Eagles' Island, opposite the town, contains many thousand acres of swamp land, and was then part under cultivation in rice by the irrigation method, and from North east to Southwest the town was surrounded by rice-fields [Letter of Dr. John Hill in the "American Medical Recorder," 1821—"Yellow Fever as it prevailed in Wilmington in 1821] "The parts of the town adjacent to the river are but a few feet elevated above its surface The wharves are made ground, badly constructed, and are always overflowed by storms and frequently by high tides" There was in the vicinity of he public square an unfinished wharf, partly filled with decaying vegetable matter The docks were notoriously filthy, and the cellars so low and damp as to require bailing daily in wet seasons The commercial part of the business of the town being conducted mostly by strangers, "who desert us during the sickly season," their premises being locked up, they were rendered putrid by the decaying "potatoes and other vegetable substances left there" Such had been the condition of things for years. The brig "John London" came in from Havana 25th July, 1821, and following upon it was the appearance of yellow fever. Dr John Hill, in his article to the "American Medical Recorder," contends for the local origin of the fever (and its now contagiousness), apparently believing it to be an intensified form of bilious fever. One of his colleagues had asserted that he had attended two cases of yellow fever

to the 9th of August. His sister, Mrs. Morrison, died of the disease at Smithville.

Dr. John Hill says it did not have respect to age, sex or color. Dr. McRee's account of it to Dr. John H. Hill was that there were many "walking cases." A man would feel as if he had recovered entirely of the disease, get up, put on his clothes, walk down street as though nothing was the matter with him; meet his friends and be congratulated on his recovery, return home, and in a short time expire. One case he related of Mr. Charles Wright, a prominent lawyer of that time, who had avoided the exposure of the contagion by residing on the Sound (8 miles from Wilmington). After the epidemic had ceased he came up to town, on his way to Duplin county. Dr. McRee met him and cautioned him by no means to go into his office, as his servant had been sick there and recovered, since which the office had been closed without ventilation. He remarked that his papers were in the office and that he must get them as it would be useless for him to go to court without them.

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before the "John London" came in. The story of the arrival of the vessel after twelve day's passage from Havana with a sick mate on board who had fever and jaundice (to the latter disease he declared to the health officer he was subject!); the only other sick man was one who, in a fit of mental derangement owing to the voyage, jumped overboard and was drowned; the bedding of the captain was taken to his house, into the thickest settled part of the town, and no sickness occurred in his family; "many of the most respectable citizens partook of a collation on board the "John London," and were seated for hours in the cabin in unsuspecting security, passing the fiery ordeal unharmed"; it was some time in August when the disease began to be epidemic Here we have the story of yellow fever which was actually repeated forty-one years after The treatment of that day was just as it remained for fifty years afterward; following Dr Johnson [Dr. James Johnson, the author of "The Influence of Tropical Climates on European Constitutions," etc, etc], calomel was given in 20-gr doses with ½ grain of opium, and, not waiting for the action of the calomel, which was retarded by the opium, an enema was given. The immediate object after the bowels were evacuated was to "establish a full mercurial action by calomel and the ointment, Dr. Hill adding, emphatically, that he ever found this treatment "*no fraud* upon the public." [It is worth noting that Dr. Hill gave with satisfaction carbon" (pulverized charcoal), "rubbed up," ½ to 1 teaspoonful in an ounce of lime-water, and repeated it every hour, to keep the stomach quiet.]

He did so, went to court, and, after being there a few days, was taken sick with symptoms of the fever, started home, but got no further South than Washington, from which place he sent for Dr. McRee, dying before he could get to him. The friend who roomed with him and nursed him at court and until he died, entirely escaped the disease. This incident fairly identifies the nature of the disease as the same which visited us in 1862. The physicians who practiced in Wilmington at that date were Dr. DeRosset, the elder, and Dr. John Hill, who was afterwards President of the Bank of Cape Fear. When the epidemic of 1862 visited Wilmington Dr. McRee was the only physician* who had any experience in it, and he was not slow to recognize the fever, although he had then been sixteen years out of practice. He nursed the lamented Dr. Dickson during his fatal attack of the fever.

Dr. McRee was magistrate of police (equivalent to Mayor) for the town of Wilmington from about 1827 to 1831, a period covering the time of the so-called "negro insurrection," commanding at the time a troop of cavalry that did effective patrol duty. When Wilmington was captured by the Federal Army (1865) the older negroes who remembered his day of municipal rule, plied the ears of their willing listeners, the officials of the army of occupation, with bitter tales of their wrongs, which caused them to treat him with gross indignity.

AS A BOTANIST.

When Mr. Moses A. Curtis came to Wilmington from Massachusetts, in October, 1830, as tutor to Governor Dudley, he found Dr. McRee a most diligent student of botany. One of his old friends writes me that, "Amidst all his labors in his profession, he devoted a great deal of his time to botany." His practice was largely in the country, and the young doctor could ride along the solitary roads for miles, greeted at nearly every step with the happy faces of old and new floral friends. From savanna to sandhill, from river swamp to causeway, in the flaring heat of an August sun or the nipping frosts of January, he caught the glowing colors of the liatris, the coreopsis, the solidago, the gerardia, and was enlivened by the busy hum of the insects among the sarracenias and droseras,

*It was stated differently, but erroneously, in the biography of Dr. Dickson, in the August number.

nor had he far to look in the sheltered nook of a bog for a brave spiranthes, with its spiral necklace of pearls, or an aster, with its radiant purple, lifting their heads amid the desolation of winter. It was in such a school that he trained his perception, heightened his power of diagnosis, exercised his memory, and meditated upon the wonders of God's providence and creation. A lost art now, because of the necessities of other studies and diversions, but one which at this day added a galaxy of distinguished names to science and likewise added permanent material to botanical knowledge.*

Dr. McRee retired from practice first in 1834–'35, and settled upon a plantation at Rocky Point (now in Pender county), about fifteen miles from Wilmington. He was a successful planter, finding it congenial with his tastes, and affording him opportunity to indulge his passion for botanical exploration. When the Rev. M. A. Curtis published his "Catalogue of Plants Growing Spontaneously Around Wilmington," in 1832, he made his acknowledgment to him for his assistance, and all through the list we see rare plants inserted upon his authority, most of them found at Rocky Point. Subsequently he added 30 or 40 new plants to Curtis' list.

He conducted a considerable botanical correspondence and exchange of plants with other botanists, and kept his own herbarium renewed with fresh specimens up to later days. In 1837 he made a journey to Southwest Georgia, stopping over at Augusta to pay his respects to Dr. Ray, a botanical correspondent he had never seen, and the meeting between the two friends was of that cordial sort that only the kinship of botany can inspire.

Shortly after he returned from Georgia he resumed the practice of medicine in Wilmington, continuing in it until 1846. He purchased the old estate of the Revolutionary patriot, Cornelius Harnett, from John R. London. Here, amid the beautiful floral family which he gathered around him, he expected to end his days. Every ornamental tree or shrub he came across in his botanizing tramps he added to his collection, until his broad acres imitated

*His name is only signalized in botany by the naming of a species (a variety, according to Sereno Watson) of Galactia Macreei, incorrectly spelt, by the author quoted, Macræi.

the botanical gardens of Michaux, near Charleston and Bartram, at Germantown.*

He was a successful horticulturist, raising upon his farm at Hilton a variety of kitchen products not found at that day (1857) in our markets—taviers, rhubarb, canteloupes, burr-artichokes (cynara scolymus), and others—stimulating others in the art of kitchen gardening by his example.

It was as a diagnostician that Dr. McRee excelled, and in the consciousness of his ability his manner was that of the autocrat. This trait extended into many of the relations of life. His pride was that of conscious power, and the all-but unlimited scope of his authority over his large household and plantation servants, and the ready admission of his superior learning by his confrères, tended to confirm him in it. The spirit of the faculty of that day was that of imperiousness and dogmatic assertion, and in his own community he was an "authority" to be feared by opponent, to be warmly welcomed by friend.

As a surgeon, he was bold and original, at a period when the amputation of a limb or couching a cataract was considered the test of surgical ability. As early as 1840, Dr. E. A. Anderson relates, he performed a plastic operation for the restoration of a perineum in the person of one of his negro servants, who was suffering from complete procidentia uteri.

His habit of study was a part of his existence, and after he had attained the seventies he was a diligent reader of the standard

*The ancient mansion of Cornelius Harnett overlooks the banks of the Northeast Cape Fear River. It comprised a large tract of well wooded upland, with a small body of swamp rice-land skirting it to the North and East. It was here that Harnett lived, and where, during Dr. McRee's day, an old-fashioned Southern hospitality abounded It was sold in 1867 to Mr. Grafflin, of Baltimore. Since then the proud acres are scarred by an ugly railroad cut, an iron bridge crossing the river at this point, and the pumping station and stand-pipe of the Clarendon Water Works denoting the changed spirit of the times The quaint old house is at the mercy of negro tenants, and in a few years all will be ruins It was under the hill, only a few yards from this house, that Mr. Canby, of Wilmington, Delaware, found a specimen of true Maiden's Hair Fern, Adiantum Capillus-Veneris, which had escaped the keen eyes of both Curt s and McRee. What would the old botanist have said had he known of the presence of such a treasure so close under his windows!

authors in medicine. Only a week or so before he died he was enjoying the classical work of "Pareira on Materia Medica and Therapeutics.

An old copy of the *Cape Fear Recorder* states that he was elected a vestryman in St. James' church February 7th, 1827. His seat was occupied in church with such regularity that the minister would have been as much missed as he. As the shades of old age gathered around him he lost much of his austerity of manner, and took special pleasure in aiding the young students of the profession. His readiness in his latter days in botanical diagnosis was the admiration of all who sought information from him.

His continued interest in the profession is shown by the fact that, as late as 1868, he was President of the New Hanover County Medical Association.

The following memorial of his life-work is taken from the records of this Association :

"Died, suddenly, in the city of Wilmington, on the morning of the 9th of August, 1869, Dr. James F. McRee, Sr., in the 75th year of his age.

"In this brief notice we have to record the unexpected death of our oldest and most prominent physician. Dr. McRee was in every sense a veteran in the service. For more than 50 years he wore the harness of the physician, and as such treated four generations—dying loved and honored by them all. He outlived the venerable DeRossett, the Nestor of the profession, who carried us back to the days of Cornwallis and the Revolution of 1776. He was a contemporary of the lamented Dickson, a pupil of Dr. Nathaniel Hill, the finished scholar and high-toned gentleman of the old school. He lived to see them all sleep the last sleep of the just, and has now gone to join the endless number of those whose dying moments his gentle hand and kind heart led through the dark valley of death.

"Dr. McRee was a man of more than ordinary attainments—a finished classical scholar, he read Latin and French with as much ease as English—an accomplished chemist, a bold, daring and skilltul surgeon, unrivalled in his diagnosis and prognosis—he became the most popular and successful practitioner on the 'Cape Fear.'

"In the department of botany the Doctor excelled—that branch

of our profession so much neglected. Loving and cultivating flowers with the gentle and refined taste of a woman, his residence in our city was one gay *parterre* of rare native and foreign plants. In his younger and palmier days, elegant and refined taste marked his beautiful garden, with its endless variety of roses, jessamines, lilies and magnolias, while a large and spacious hot-house was crowded with rare and gorgeous tropical plants.

"With the indigenous 'Materia Medica,' the Doctor was perfectly familiar, and was *authority* on all disputed points of botany, and was referred to on every hand to determine the name, class and properties of any unknown plants in the Cape Fear region, many of which he used successfully in his practice. Always courteous and considerate in his deportment to his fellow-physicians, he won their esteem and affection. A strong supporter of the Medical Society, he filled the honored place of President for some time, and even when the infirmities of years put an end to the active duties of his profession; his venerable form encouraged by his presence the debates and discussions of the younger members.

> "No time-server or trickster was he;
> No truckler to the dominant powers that be."

"In the great contest through which our State has just passed, his heart was with his own people. He lived and died *true* to the South, the land of his birth. To the day of his death he took an active interest in the profession he so long served. Fond of medical literature, he read with eagerness all the new journals, and loved to discuss medical topics with his friends. A perfect mind in a failing body, his grand intellect was unclouded to the last. Suddenly, without warning, without pain, he passed from life to death. But, not unprepared, his house was in perfect order. He who had looked unblenchingly upon death for years, feared it not now, for he died the death of the righteous. A noble Christian gentleman, a kind-hearted, benevolent man, a tender, skillful physician, the tears and wails of mothers and orphans follow him to his lonely grave, where sleep peacefully the bodies of his loved ones, who preceded him but a few years ago."

"Mark the honest man and behold the upright, for his end is peace."

REPORT OF A CASE OF INTRA-OCULAR DISEASE IN A CHILD—DOUBTFUL DIAGNOSIS—RESULT OF MICROSCOPICAL EXAMINATION—THE LESSON TO BE DRAWN.

By K. P. Battle, M.D., Raleigh, N. C.

(Read before the Raleigh Academy of Medicine, December 16, '91.)

The following case from the practice of Drs. Lewis & Battle will prove, it is hoped, of practical as well as scientific interest:

On May 22 a boy of twenty-one months was brought from a distance by the mother for treatment of one of his eyes. The anterior chamber was filled with yellowish white pus, concealing the pupil and iris completely and giving a singular appearance to the eye. The cornea seemed to be clear, the conjunctiva was but little congested and the tension was normal. There was nothing else noticeable about it. The child did not seem to be in much pain. The only history that could be got from the mother was that she had for some time noticed a white spot in the eye, and that she had been told it was a cataract; that the child had never had any illness till two months ago, when it had whooping-cough, and then the eye first became red; that a week ago it had become much redder; and that two days ago the pus had begun to collect in the front of the eye (anterior chamber). The diagnosis of suppurative choroiditis was made, though the absence of many symptoms, chiefly great pain, redness and swelling of the lids, and chemosis, showed that it was a very unusual case. It was recognized that the case was not yet fully understood. There was no history of injury or previous disease to account for a suppurative choroiditis—yet there was the eye apparently full of pus, and with no corneal disease and no iritis. Time would show more, and it did.

The anterior chamber was tapped, under chloroform, and an astonishing amount of first watery and then bloody pus escapes, much of it from beyond the pupil. This remained filled with a film of pus and blood, which entirely obscured the lens, so that little was learned of the condition of things behind the iris. The cornea was shown to be entirely clear and the iris appeared normal, with pupil dilated. The child became entirely comfortable, the

wound closed and he was taken home. He was brought back in five weeks, and it was now still more evident that it was not a case of uncomplicated suppuration of the choroid. Instead of going on to shrinking, the tension was plus, there was a decided bulging of the sclero-corneal junction at the site of the former puncture, and the globe was somewhat prominent. The child had lost flesh, but had not suffered severe pain. There was again pus in the anterior chamber, not great in amount, but so distributed over the pupil that the lens was hidden as before. Paracentesis was again done, and this time the pupil was left clear. By oblique illumination with a lens it was shown that the crystalline was really transparent, and that the apparent opacity seen by the mother previous to the collection of pus in the anterior chamber, was due to a whitish yellow reflex from behind the lens. This was strongly suggestive of the cancerous retinal tumor which occurs in young children—glioma. The differential diagnosis, however, between this disease and internal suppuration from another cause, was not yet definitely made, but it was advised that enucleation be done without delay. The father was summoned from a distant city, and was seen by us for the first time. He gave more intelligent information than we had been able to get before, saying that he noticed for several months a peculiar light from the eye in certain positions, reminding him at times of the shining of a cat's eyes. This important bit of information made it probable that glioma was the heart of the trouble. This peculiar appearance, and another giving the impression, when the pupil is looked into, that the bottom of the eye can be seen (yellowish reflex), are apt to be mentioned by parents, and are almost pathognomic of intra-ocular tumor.

Enucleation was accordingly done, the optic nerve being cut as far back as possible in the hope of removing all the diseased tissue. The parents were warned, however, that the disease might return. When the eye was examined it was found that there was no rupture, that the lens was transparent, that there was a tumor measuring about one-fourth by three-eighths of an inch, and that the rest of the vitreous chamber was filled with a mass resembling in appearance lung tissue that had undergone caseous degeneration, and suggesting the rare disease tuberculosis of the eye. The appearance of the whole was so peculiar that we decided to get the authoritative opinion of Dr. Charles Heitzmann, of 39 West 45th

street, New York, as to the nature of the growth. In his report he says: "The eyeball has been halved and a tumor found occupying the vitreous chamber, starting from the choroid, invading the optic papilla and pushing forward a part of the ciliary body" "The tumor is a small round celled or lympho sarcoma of the choroid, without pigment clusters, of considerable malignity, and not a glio-sarcoma of the retina. Glio-sarcoma (glioma) is composed of elements with large nuclei and invariably starts from the retina. In your case, on the contrary, the tumor was made up of elements resembling lymph corpuscles, and such tumors invariably start from the choroid. This fact certainly adds to the interest of the case, which I also would consider worthy of publication." "There is danger of a recurrence of the tumor in the eye-socket, since the sheaths of the optic nerve are already affected by the sarcomatous growth."

Choroid sarcoma in children is a very rare disease. According to Berry's statistics, among 181,853 eye patients there were only 82 cases of sarcoma for all ages, or a proportion of 1 to 2,218. From other sources it is found that only about 4 per cent. of all cases occur in children under 10, so that the proportion of sarcoma of the choroid in these children to the whole number of eye diseases may be said to be about 1 in 56,000. For children under 2 years the proportion would be far less. Glioma is not a common disease, but it always occurs in children, never in adults, and – from Berry's statistics again—I calculate that as between glioma and sarcoma in patients under 10 an intra-ocular tumor is more likely to be the former in the proportion of about 30 to 1.

The subsequent history of the case may be soon told. The growth returned and developed with great rapipity. The extremely small chance of saving life by emptying the orbit was explained to the parents and further operation was declined. The child died in a few months.

The practical lesson to be drawn from this case and from others of intra-ocular tumor that have occurred in our practice is the vital importance of early diagnosis. As is generally the case, the child in question was not seen by a physician till too late. The prognosis is not good at best, and the only chance for saving life is enucleation in the first stage of the disease, while the malignant tissue is still confined to the eye and within reach. The diagnosis at this

time can be made with certainty with the ophthalmoscope alone. Any peculiar appearance about the pupil of a child's eye should be the signal for calling in a physician, and if he finds any reason to suspect intra-ocular tumor, and is unable to use the ophthalmoscope satisfactorily, the child should be sent at once to an oculist.

PROF. HARE says that for fainting, as a rapidly acting stimulant, give alcohol, hot and concentrated. The hot alcohol acts much more quickly than cold, because the cold alcohol, before it could be absorbed, must be heated up to the temperature of the body.—*College and Clinical Record.*

THE A. C. E. MIXTURE.—I began using the A. C. E. mixture within a year or two after its first recommendation, and I have used it ever since, except in obstetrical practice and for very young children. I have used it for all sorts of patients; for all kinds of operations, minor and major. I recognize fully how insignificant is any individual experience as to anæsthetics, except under very exceptional circumstances, but personal experience always speaks with a loud voice to the person who makes it, and so I may be pardoned if I have acquired strong convictions of the practical advantages and the safety of this mixture. It is to be regretted, of course, that to the three deaths published the number of administrations cannot be added, but this is impossible. The mixture is "largely used in England," according to Buxton. The *Lancet* speaks of "extensive experience" having demonstrated its efficiency and its far greater safety as compared with chloroform. Adding to these statements the fact of a very considerable use of the mixture in this country, and it is certainly safe to conclude that there has been such an experience with it that a rate of mortality at all approaching to that of chloroform must already have become apparent. I fully believe it to be as safe an anæsthetic as any, and one by which the dangers of chloroform and the inconveniences of ether are alike avoided.—Dr. J C. Reeves, in *Kansas Med Jour.*

SELECTED PAPERS.

SPONTANEOUS RECOVERY IN ACUTE ARSENICAL POISONING.

By HAROLD N. MOYER, M.D.

(Read before the Medico-Legal Society of Chicago, October 3, '91.)

Almost every poisonous substance is characterized by some fairly pathognomonic symptoms with the exception of arsenic. It belongs to the class of intestinal irritants, the symptoms of which may be closely imitated by any simple inflammation of these parts. We lack the characteristic symptoms presented by opium, belladonna, or strychnia, so that the diagnosis of arsenical poisoning is difficult or impossible without the aid of a chemical analysis. The symptoms and pathological appearances in acute arsenical poisoning are fairly constant, and yet there is an occasional case in which there is such a wide divergence from the typical picture that there is great liability to error. With these uncertainties clearly before us, we should be very careful in advancing dogmatic opinions.

The average fatal dose of arsenic is well known, but the literature of medicine contains many cases where spontaneous recovery has taken place after the ingestion of a quantity many times greater than a dose that commonly proves fatal. It is apparent that the factors governing these cases are exceedingly various: The resistance of the patient may be greater than usual; a dose, granting that it is all absorbed, may be eliminated that in other cases would prove fatal. Again, the rate of absorption may vary. If the arsenical preparation is relatively insoluble, it may be so long in entering the circulation that the greater portion is either vomited or passed off by the bowels in consequence of the violent peristalsis produced by the drug. As a matter of fact, it is only exceptionally that recovery takes place when these violent symptoms are present. Recovery has, however, been noted after the taking of enormous quantities. Tidy refers most of these cases to that class in which the poison is taken upon a full stomach, as a consequence the great bulk of the drug is rejected with the food in the first

efforts at vomiting. It is probable that this is the explanation in most of the cases where spontaneous recovery has taken place after exceptionally large doses. It would be hazardous to deny the possibility of spontaneous recovery even where the arsenic has been administered upon an empty stomach, but we may at least say that it is highly improbable. Any one who has ever examined a stomach containing a considerable quantity of arsenic must have noticed the closeness with which the powder adheres to the mucous lining of the organ. The healthy empty stomach always contains a small quantity of mucus, and this serves to glue the powder to the stomach walls so that with violent vomiting it is gotten rid of with difficulty or not at all.

The following case is one of peculiar interest, and is, so far as I know, the first time the question of spontaneous recovery from arsenic has been directly raised in a court of law.

The facts are briefly as follows A man was charged with the attempted murder of his child, the motive alleged being a desire to inherit considerable property belonging to the latter. The testimony brought out at the trial showed that the child was three and one-half years of age, and that it had always been of delicate health. The night preceding the alleged poisoning the child was taken vomiting shortly after eating a hearty supper. A physician was called in and made a diagnosis of dyspepsia and bronchitis. The boy vomited once or twice during the night. At fifteen or thirty minutes after six the following morning the father gave him a drink of water in which it was supposed he had placed the poison. At fifteen minutes after seven a woman who had charge of the boy came into the room to dress him. He then complained of feeling ill, and began to vomit. The nurse noticed that the tongue was covered with a thick green coat; the vomited matter was also mixed with a greenish substance that stained the towel upon which it was caught. A subsequent examination of these cloths showed the greenish matter to be Paris green, the quantity recovered amounting in all to about 2 grains. (Regarding the quantity of Paris green there is a discrepancy between the testimony of the physicians who examined the towels and the chemist who made the tests. The former say that at least one-half teaspoonful of Paris green would be required to produce the amount of staining which they saw. We may disregard this, however, as the smallest quan-

tity stated, 2 grains, is amply sufficient to cause death in a child three and one-half years old.) A servant also noted and testified that the child vomited a greenish substance. As soon as the vomiting began a physician was summoned, who reached the house at 8 : 15 a. m. On the strength of the statements made to him he prescribed an antidote and an emetic, the latter acting freely. This physician refused on the stand to state that he believed the symptoms were due to arsenical poisoning, as he thought they were too mild. A second physician, who saw the child at 10 : 30 the same morning, also refused to state that in his opinion the illness was caused by arsenical poisoning. After the effects of the emetics passed off there was no special disturbance of the child's health, no vomiting, purging, inflammation, or prostration.

Certain facts in the above account show that this case is one that must be classed among the spontaneous recoveries, granting that a fatal dose of arsenic had been administered as alleged. It must also be placed among the unusual ones, as the poison was given on an empty stomach. At least three-fourths of an hour elapsed from the latest time when the poison could possibly have been administered before the child began to vomit, then he was given some milk, and he vomited again. One hour later a physician arrived and administered an emetic, but at this time no greenish matters were discharged.

The question naturally presents itself, and it was one upon which we were asked for an opinion, "Was the Paris green administered as alleged?" If we assume that it was given, then we affirm the possibility of recovery upon an empty stomach and without the use of an antidote or emetic. Granting this poisibility, the additional fact presents itself in this case that the child was not ill after this severe dose of arsenic. Assuming that the vomiting was caused by the poison, sufficient must have been absorbed to cause marked irritation of the stomach. Is this possible in view of the fact that there was no purging, inflammation, or prostration three hours after the administration?

Beck mentions a case of spontaneous recovery after Paris-green poisoning in a young boy. Recovery took place only after prolonged illness with severe prostration. It is a general experience that recovery after acute arsenical poisoning, if sufficient time has elapsed for vomiting to have occurred from action of the drug, is

exceedingly slow. The patient is often prostrated for days, and sometimes death takes place long after the administration of the fatal dose.

In view of the very great uncertainty that surrounds the subject of acute arsenical poisoning, we can hardly deny that arsenic was administered in this case, and yet a careful consideration of all the facts throws at least a reasonable doubt upon the testimony. An opinion was accordingly given, that while the facts as brought out in the testimony were not inherently impossible, they were in a high degree exceptional. A very ingenious explanation was offered by one of the medical witnesses. He would account for the spontaneous recovery on the theory that, as the child was suffering from bronchitis, it must have swallowed a considerable quantity of mucus during the night. This he thought would act in much the same way as a quantity of food in delaying absorption of the poison.—*American Practitioner and News.*

THE BACILLUS OF TYPHOID FEVER; ITS OCCURRENCE AND SIGNIFICANCE.

By J. A. Jeffries, M.D.

In 1882 Eberth announced that certain groups or colonies of short bacilli could be found in the Peyer's patchers, lymph glands of the mesentery, spleen and other organs of those dead of typhoid fever. Meyer reported shortly after on the subject, and added much weight by showing that such groups of bacteria existed in nearly all cases of typhoid fever. This was before the general use of aniline dyes and solid culture media.

Next Gaffkey showed that these groups of bacteria could be stained by long immersion of sections in solutions of methyline blue and washing in acidulated water. He also showed that the plant could easily be grown at room temperature, and that the cultures were quite different from any known at that time. The plant grew as a bacillus with rounded ends, was endowed with the power of motion, and apparently formed spores. Gelatine was never dissolved; the deeper parts of the shaft were beaded and slightly

brown in color. The growth on potato was regarded as a diagnostic character, the peculiarity being extensive growth, as shown by the microscope, yet nothing to be seen by the naked eye except a slight shimmer or difference in texture when looked at in a favorable light.

Koch and others soon demonstrated not only that the bacillus occurred regularly in all active cases of typhoid, but also that it could not be found in those dead of other diseases. This put the subject in such a position that a few years ago one spoke of the typhoid bacillus as quite a settled matter. To-day we do not know half as much as then. The very individuality of the plant has been questioned. The difficulty has come from the discovery that a large number of bacteria exist which grow on potato just like the typhoid bacillus, and that some plants identical in all the culture characteristics given by Gaffkey are not so very rare, and occur in the stools of people with intestinal disease. As a result, the Eberth bacillus has been cultured in a great variety of ways, and subjected to a very close scrutiny, in the hope of discovering some character or group of characters by which it could be positively recognized. So far all efforts have been futile. If Babes is correct in his observation, there are a host of other bacteria, either closely allied species or varieties, which occur in man and chiefly in man with typhoid fever.

Even yet the difficulties of the case are only half related; the Eberth bacillus is a protean form, and varies much in its shape, form and manner of growth, with minute changes in its surroundings—as temperature, degree of chemical reaction and composition of the media. Therefore, to day, to demonstrate that a bacillus is identical with Eberth's it is necessary to compare it step by step, culture for culture, under precisely the same conditions with an undoubted culture, and to have derived the original supply from a case of typhoid.

The above conditions can be fulfilled in practically every case of typhoid fever which has died before the disease has passed off, and the original microscopic findings can be verified in the same way. Those conditions have never been fulfilled in a single case of other disease. We are, therefore, justified in claiming the existence of a peculiar bacillus or bacillus group in every case of typhoid. This is the ground on which the claim of the typhoid bacillus depends.

It rests on the same evidence as the spirillum of relapsing fever, the plasmodium of malaria; both are always to be found in their respective diseases, never in health or other diseases. It is, therefore, clear that the typhoid bacillus and typhoid fever stand in some sort of causative relation; things which vary together are connected causatively. From analogy and the improbability that the bacilli are the result of a secondary invasion, the bacillus is commonly accepted as the cause of the disease. No careful student claims this as proved, neither is the law of gravitation.

A few authors have attacked the integrity of the bacillus, and argued that typhoid fever is a condition, and the bacillus in reality a variety of species, as in the summer diarrhœa of infants. Others hold that the plant is simply a modification of a common denizen of the intestine. But epidemiology and clinical study point so clearly to a specific disease transmitted from case to case that I do not think these views need be entertained, at least until their supporters produce some substantial evidence.

The distribution of the plant in the body bears a close relation to the nature of the disease. First, it occurs in the substance of the swollen Peyer's patches, before these have sloughed, not simply in the mucosa, but in the round-cell aggregations. After the surface has become eroded and an ulcer is formed, the surface becomes literally coated with all sorts of bacteria, cocci, streptococci and bacilli; among the latter there is often a rather long bacillus, which Klebs at one time held to be the cause of the disease. Evidence, however, points to its being distinct from the typhoid bacillus. It only occurs on and in the surface of the erosions, not deep in the tissue. Nearly, if not quite, simultaneously with the appearance of the bacillus in the follicles, the lymphatics of the mesentery swell and show nests of the same bacillus. The nests contain from fifteen or twenty bacilli to hundreds, and form a mass varying in size from that of a nucleus to one very much larger. The centre is apt to appear almost homogenous or finely granular; but the circumference clearly shows short, straight, irregular looking bacilli. The irregular appearance is due to parts of the bacilli staining less than the rest.

The spleen shows precisely the same state of affairs. According to the duration of the disease and other factors, the number of

colonies vary greatly. In advanced cases even two hundred sections may be examined before a colony is found. From this their prevalence runs up to as many as fifteen or twenty in a single section.

So far the colonies have been described as being in the tissue, between the cells, not as bearing any particular relation to the blood-vessels or other parts. To this the liver offers a contrast. Here the plant is apt to occur in the form of distinct thrombi, which have grown from minute emboli.

In the kidneys the colonies occur chiefly in the cortical portion; are often present, at times abundant, but apparently are not present with the same regularity as in the spleen.

Besides the above organs, the typhoid bacillus may be found in most any part of the body. Thus it is apt to occur in those cases of lobular pneumonia which so often complicate cases of typhoid. It has also been reported as existing in the meninges in cases of complicating meningitis, and in abscesses in such different parts of the body as the parotid glands and the tibiæ. At times the bacillus is found alone, but mostly in company with some accepted pus-producing bacterium.

Numerous examinations of the blood in all stages of the disease have been made, and observers have reported positive results, especially from material procured by opening a rose spot. Others have failed. That the plant can occur in the blood, the emboli in the liver demonstrate; nevertheless, none of the observations are above question; many simply depend on the microscope and are absolutely worthless; others are supported by cultures, but in no cases have these been carried to that degree of fineness and accuracy necessary to establish even a probable diagnosis. Examination of the blood in doubtful cases for purposes of diagnosis is therefore a failure, and until our knowledge is greatly improved must remain so. Provided the typhoid bacillus was found, its positive recognition would require so much time that the practitioner would take but little interest in the result.

All the above remarks apply to the search for the bacillus in typhoid stools; it may be there or it may not. Many claim to have found it, many have failed. The difficulties are enhanced by the enormous number of bacteria in fæces, and the occurrence of many typhoid-like bacteria in the intestines of typhoid patients. All

sorts of ready methods of isolation have been recommended, but none have stood the test of time. The only feasible method is to make plate cultures from the stools and then search for the desired colonies. These have nothing characteristic about them, are variable, so that in searching for the typhoid bacillus plates of pure cultures of the typhoid plants must be made to serve as a control and comparison in each case. Even then the amount of error is large. Lately word has come that a regal road to the typhoid bacillus was found. All that is necessary is to use agar and put the plates in the thermostat and presto! the next day, thanks to the warmth, the typhoid (pathogenic) bacteria have developed finely, while the others, not liking heat, are retarded in development. Beautiful, but mistaken. All, or nearly all, the germs in the intestines thrive better at 98° than at 68°. There is nothing new about the method except the theory; by it we hasten development and avoid liquefaction; on the other hand, we lose the signs of the only absolute fixed character, non-liquefaction of gelatine, and run a considerable risk of killing the plants we want to study.

Considerable attention has been paid to the urine in cases of typhoid, and the weight of evidence seems to indicate that the bacillus is quite liable to appear in the urine when it contains albumen, that is, early in the course of the disease. As yet, however, the universal doubt which hangs over most everything relating to the typhoid bacillus weighs heavily. More evidence and closer work is needed before positive statements are justified. Reasoning from analogy and the presence of the bacillus in the kidneys, their occurrence in the urine seems most probable.

The only other method of utilizing the bacillus for diagnostic purposes is that of tapping the spleen. This has been done on several occasions, and the method is spoken of as a success. Probably none of us, however, would be willing to have our own spleens tapped for the sake of a diagnosis.

So far only the distribution of the bacillus in the body has been considered. There yet remain the relations of the plant to the cell changes and the result of animal inoculation. As to the latter, the weight of evidence is that the plant is not pathogenic in any of our experiment animals, certainly is not capable of producing any disease to typhoid fever. The inoculation of large amounts kill a certain proportion of the smaller experiment animals, but this is

evidently the result of various poisonous principles introduced, and not due to the multiplication of the bacillus in the body.

In man there are certain focal or localized cell changes, over and above the diffuse changes which are more or less characteristic of the disease Thus we have certain small round-cell accumulations in the parenchyma of the various organs—the so-called typhoid lymphomata, and also certain other patches characterized by the loss of the staining qualities of the cells, their partial atrophy and the splitting up of the nuclei into two or more strongly staining bodies. The final result is an almost homogenous mass, in which close study may reveal the ghosts of the cells, through which are interspersed a number of deeply-stained, highly refractive small bodies, the remains of the nuclei and some connective tissue cells. These two processes, though presenting similar optical appearances, and until recently grouped together, are in reality distinct. The first is a demonstration of life, the other of death. The same or a similar process is to be recognized in various parasitic diseases. At the present time no direct, or rather topographical, relation has been made out between either processes and the colonies of the typhoid bacillus. The tissue directly surrounding a colony may appear precisely like the body of the organ, or it may be altered in either of the above ways.

Again, either alteration may take place without any recognizable bacilli, so that, allowing the pathogenic qualities of the plant, we must attribute these changes to the general state of the body, as secondary manifestations rather than primary.

Wherever the bacillus is found it is not in the cells, but between them. This shows very clearly about the borders of the colonies; at times a cell can be recognized in the thick of the bacteria. What becomes of the cells which occupied the places of the colonies I do not know; they must be either pushed to one side, digested or simply obscured—very likely all three.

If the reported cases of the detection of the typhoid bacillus in stools and urine are correct—probably some and some are not—we have an ocular demonstration of their mode of dispersion preparatory to reinfection. In my own mind there is no doubt but that the germ escapes from the body in one or in both of these ways. With this point in mind, much work has been done calculated to show how long the typhoid bacillus can exist in dejecta, the ground

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and water. Most experimenters have concluded that the time was rather short, the typhoid plant being crowded out by the other germs. This sort of work, however, is not productive of much good; our experiments will never equal those of nature. The answer to this problem is best found by a study of the numerous local epidemics of typhoid where the source is known, not in the bacteriological laboratory. Though there is no spore produced, the time will be found quite long—longer than might be expected of a plant which apparently is incapable of a prolonged independent existence.

What we want to know is how to sterilize the dejecta. The urine is easily cared for. A moderate amount of carbolic acid and time will do it. It is my custom in all cases of parasitic disease to have some antiseptic as carbolic acid always kept in the receptacle for the urine. When dissolved, corrosive sublimate is very effective, but where much albumen is present I have been afraid to rely upon it. The stools are not so easily dealt with; corrosive sublimate is not at all reliable. Carbolic acid in strong solution, so as to produce a 3 per cent. solution when intimately mixed with the dejecta, is safe. Just pouring some carbolic acid on poking the mass with a stick will not suffice. Fæces are very difficult to sterilize. Some simple sort of oven or stove in which dejecta could be dried and burned is a great desideratum. Our large cities are supposed to see that the sewer waste is not dangerous; in smaller places out-door space for such an apparatus is most always at hand.

A word as to the examination of drinking-water. The epidemiologist attributed a prominent role in the spread of typhoid to water contaminated with dejecta long before the bacillus was found. Time has only strengthened this position. Of course, therefore, many searches have been made for the bacillus in water—and what could be more natural than to find it? Yet Koch recently said that all reported discoveries of the typhoid bacillus in water must be accepted with reserve. It may have been found, but as yet the requisites of a demonstration have not been produced. Very much the same may be said of milk. Outbreaks of typhoid are occasionally apparently due to the consumption of milk contaminated with infected water.

In closing we have good reason to believe that Eberth's bacillus is a species and the cause of typhoid fever; that it escapes with the

dejecta, and after spending a variable amount of time at large is liable to gain entrance to another individual and reproduce the disease. Lastly, that a large number of unjustified conclusions as to the finding of the bacillus in nature have been given to the profession under the guise of the bacteriology. Some of the records may be correct, none are beyond doubt, and few are really worthy of consideration.—*Boston Medical and Surgical Journal.*

THE EFFECTS OF TOBACCO UPON THE SYSTEM.—According to *Science*, in an experimental observation of thirty-eight boys of all classes of society, and of average health, who had been using tobacco for periods ranging from two months to two years, twenty-seven showed severe injury to the constitution and insufficient growth; thirty-two showed the existence of irregularities in the heart's action, disordered stomach, cough and a craving for alcohol; thirteen had intermittency of the pulse, and one had consumption. After they had abandoned the use of tobacco, within six month's time one-half were free from all their former symptoms, and the remainder had recovered by the end of the year.—*College and Clinical Record.*

DRINK FROM COFFEE LEAVES - YAUPON.—The *British Medical Journal* calls the attention of its readers to the properties of the leaves of the coffee plant. These leaves are said to contain 1.26 per cent. of theine and of coffee berries only 1 per cent Notwithstanding the superior richness in theine of the leaves, 110,000,000 men use the berries, and only 2,000,000 the leaves of the coffee. The suggestion is made that, as soon as it becomes the fashion, we will have in coffee leaves a great rival of the berry. First the art of curing the leaves must be learned, so that the public can be given a popular flavor, and then we will have a new beverage. Let us remind our Eastern readers of the favor which "Yaupon" (*Ilex Cassene*) once held among the fishermen along our coast. Yaupon contains a notable percentage of caffein (according to Venable, 0 27). Caffein and thein have been used interchangeably, but there is recent reason to believe they are not identical. Certain it is that no lover of coffee would ever admit the equality or similarity of flavor between it and tea.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,
GEO. GILLETT THOMAS, M. D., " } Editors.

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OUR DISTINGUISHED DEAD.

DR. R. L. BEALL—DR. ALFRED PLUMMER—DR. HENRY FRASER CAMPBELL—DR. ROBERT A. KINLOCH.

DR. R. L. BEALL.

We make the following extract from the *Lenoir Topic:*

"Dr. Robert Lamar Beall was born in 1831, and died at his home in Lenoir December 2d, 1891. He became a student at Davidson College in 1847, in his 16th year. In 1850 he entered as a student the University of North Carolina at Chapel Hill. In 1852 he was graduated at that institution with the degree of A. B. In 1852,

'53, '55, '56 he was a student of the Jefferson Medical College. From 1856 to 1866 he was a practicing physician in Davidson county, North Carolina. In 1863 he was sent to the Legislature as a representative of Davidson county. In 1868 he was sent by the good people of this Senatorial district as a State Senator to the Legislature. From 1870 to 1875 he was a trustee of Davidson College. From 1871 to 1874 he was a director of the Union Theological Seminary at Hampden Sydney, Virginia. From 1883 to November 23, 1891, he was a trustee of the University of this State. In 1877 he was sent by Concord Presbytery as a Commissioner to the General Assembly of the Presbyterian Church, South, which met at New Orleans, Louisiana. In 1887 he was sent again by the same Presbytery as a Commissioner to the General Assembly, which met at St. Louis, Missouri. Since 1866 he had been a manufacturer, farmer and physician in Lenoir, North Carolina. Since 1867 he has been a ruling elder 'of this flock of God over which the Holy Ghost had made him an overseer.' Of his gifts and the use he made of them in civic and political relations, and in the various literary institutions which he served as trustee or director, this is neither the time nor occasion to say more than the general statements already made. But as a Christian physician his kindness to the sick and suffering, without regard to financial condition, race or color, made him an example that we should, in all our various callings, strive in our measure to imitate."

Dr. Beall joined the Medical Society of North Carolina May 11th, 1859. Since the reorganization of the Society in 1866 he did not take an active part with it, but had been an ardent supporter of the State Board of Health, using his influence for the extension of its objects in the counties around him. He pursued his profession, and kept up the multitude of his obligations, civil and ecclesiastical, in a way that only a chosen and sagacious leader can.

Dr. Alfred Plummer.

"We regret to learn of the death of this estimable gentleman and skillful physician at his home near Middleburg, Vance county, on the morning of December 24th. He was buried in the family burying-ground in Warrenton on Christmas day.

"Dr. Plummer was 81 years old at the time of his death, and was

the last of his generation, the other ten children of his father having preceded him to the grave. He was the son of Kemp Plummer, Esq., who was a distinguished lawyer of the Warren circuit early in this century. He was for a while a cadet at West Point, one of his associates, and afterwards one of his instructors, being General Robert E. Lee. He left that institution from a sense of chivalry towards one of his companions, against whom he was called upon to give information, preferring to return to private life rather than cause the dismissal of his fellow-cadet.

"He then studied medicine and was graduated from the University of Pennsylvania, and locating in Warren, the county of his birth, devoted himself to the practice of his profession there and in the neighboring county in Virginia His charity to his poorer neighbors was unfailing and his gentleness of character endeared him to a large circle of acquaintances, while his fine fund of humor and social talents made his companionship most agreeable to all who knew him well."—*News and Observer.*

Dr. Plummer did not ally himself with the Medical Society of North Carolina, and therefore his reputation was rather limited to the smaller circle in which he so zealously practiced.

Henry Frazer Campbell, M.D.

When one looks back over the record of the literary productions of one even as prolific as Dr. Campbell, we get but a meagre view of the versatility of the writer, the readiness of the speaker, the originality of the thinker. Dr. Campbell's reputation is far more extensive than any bibliography of his works can make him. The writer remembers him first in the capacity of examiner in practice of medicine on the Richmond Army Board in 1863 His kind consideration there of the half-frozen and trembling candidate who came to seek a commission will never be forgotten. Bidding the candidate draw nearer the fire and make himself comfortable, he began on topics which were very remote from the subsequent examinations on pneumonia and pleurisy and the physical signs of diseases of the chest The examiner became so interesting that all thoughts of making a blunder were forgotten, and all of the student's choicest cramming came to the tongue's end as a pleasurable conversation. The examiner himself was as much interested

in the latest clinical terms of Hughes Bennett as though he had never heard them, and when the candidate dilated upon the riches of Andral and Lænnec, he could see he had already won a place in the examiner's heart, and was sure of one vote. Later on in life he passed delightful companionship with his senior at meetings of the American Medical and Public Health Associations, and learned to estimate what an immense brain worker he was and how procrastinating a writer. Having delivered a long paper on the Gynecological Position, he informed us he had not written a line of it, and *en route* from Richmond to Augusta shut himself up in a hotel at Wilmington for days, writing out the paper that the publication committee was now demanding

He was in 1885 President of the American Medical Association, and had had all the gifts of Society honors in the local, State and national societies

The following sketch of Dr. Campbell was written for the *Atlanta Medical and Surgical Journal* at its request in 1885 by Dr. Eugene Foster, and met the approval of Dr. Campbell himself:

"Dr. Henry Frazer Campbell was born in Savannah, Georgia, February 10, 1824 His father, James Colgan Campbell, was born in County Antrim, Ireland His mother was Mary R. (Eve) Campbell, the only daughter of Joseph Eve, and a sister of Dr. Joseph A. Eve, of Augusta. Dr. H. F. Campbell, after having received an academic education, began the study of medicine at the age of 15, and in March, 1842, when 18 years of age, graduated M.D. from the Medical College of Georgia—now the Medical Department of the University of Georgia Immediately after graduating in medicine he established himself in his profession in Augusta, where he continued to reside and practice his profession with an exception of the period from 1862 to 1865, when he was engaged in the military service of the Confederate States at Richmond, Virginia, and in 1867–'68, when he resided in New Orleans, Louisiana, and filled the chair of professor of surgery in the New Orleans School of Medicine.

"Francis Bacon said: 'I hold every man a debtor to his profession; from the which, as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto.' Let us inquire how Dr. Campbell has discharged this duty to his profession.

"From 1842 to 1854 he filled the position of assistant demonstrator and demonstrator of anatomy in the Medical College of Georgia; from 1854 to 1857 was professor of comparative and microscopical anatomy; 1857–'67 was professor of anatomy, a d in 1867–'68 was professor of surgery in the New Orleans School of Medicine, and clinical lecturer in the Charity Hospital, New Orleans, Louisiana. In the fall of 1868 the Medical College of Georgia created the chair of operative surgery, and invited Dr. Campbell to return from New Orleans and accept the professorship thus created. Dr. Campbell complied with the request, and filled the chair of operative surgery and gynæcology until 1881, when Dr. L. A. Dugas resigned the chair of principles and practice of surgery, and Dr. Campbell was elected professor of principles and practice of surgery and gynæcology.

"During the late war he was medical director of the Georgia Military Hospitals at Richmond, Virginia, and a member of the Army Medical Examining Board of the Confederate States; he is a member of the American Medical Association, was vice-president in 1858, and is now (1885) president, elected at the late meeting in Washington, D. C; member of the Medical Association of Georgia, and elected its president in 1871; a member of the American Public Health Association and vice-president in 1880; a member and one of the founders of the American Gynæcological Society; member and vice-president of the American Surgical Association; president of the Augusta Library and Medical Society in 1878; a correspondent of the Academy of Natural Sciences of Philadelphia, elected in 1858; corresponding member of the Imperial Academy of Medicine of St Petersburg, Russia, elected in 1860; elected in 1878 foreign corresponding member of the Medical Society of Sweden; member of the State Board of Health of Georgia; elected a member of the Abingdon Academy of Medicine in 1879; elected in 1882 an honorary member of the American Academy of Medicine.

"Any sketch which omitted to mention the discovery of the excito-secretory system of nerves by Dr. Campbell would do him great injustice. Three years after his discovery the great English physiol gist, Marshall Hall, announced through the *London Lancet* that he had discovered this system. Upon reading Dr Hall's paper, Dr. Hall promptly presented him with copies of his publications

several years preceding that of Dr. Hall. Dr. Hall, immediately by letter to Dr. Campbell and through the medical press, withdrew his claim and awarded the credit to Dr. Campbell. He said: 'It would be unjust to deny that Dr. Campbell has the merit of having first called attention to the excito-secretory system in the year 1850, and that he imposed this very designation in 1853. So far Dr. Campbell's claims are undeniable, and we would say *palmam qui meruit ferat.*' An examination of the vast number of contributions which he has made to medical science attests the versatility of his genius, and points to the enthusiasm of the scientist."

ROBERT ALEXANDER KINLOCH, M.D.

Dr. Kinloch was born in Charleston February 20th, 1826, and died some time in December last. He was the best known surgeon in the South, and his death has saddened the hearts of the entire profession. Dr. Kinloch was a surgeon of remarkable boldness, but eminently safe. His resources in the most difficult situations were always equal to the occasion.

He was the head and front of the Medical College of South Carolina, and for its reputation he worked with untiring zeal. We will not attempt to do justice to his life-work in as short space as we have left, but expect in a future number to have a biographical sketch with an appropriate portrait.

THE LONDON LANCET AND SOME AMERICAN MEDICAL JOURNALS.

The *London Lancet* announces in the first issue of 1892 that it enters upon its seventieth year. It has been under the editorial management of the family of its founder, Mr. Wakley, during all these years. To American medicine seventy years is very great, but can only be appreciated by taking up the first volume of the Index Catalogue of the Library of the Surgeon General's Office, and spending a morning in the first few pages of this great tome. It is a veritable cemetery of medical periodicals, as far as America is concerned, but it lacks the liveliness of an actual cemetery foras-

much as the registrar has forborne the wise epitaphs he might justly have appended to the dull inscriptions. Some comparisons of American journals with the *Lancet* may serve as historical milestones. When the *London Lancet* (1821) came upon the stage, it had one vigorous predecessor, the journal that was afterwards known by the title of the *Medico-Chirurgical Review*. This was a stately quarterly, always sustaining the very highest position in the medical world, dying in or about 1878, regretted by a group of readers not large enough to support it.

In America, Baltimore had had its *Medical and Physical Recorder* (1808) and its *Medical and Philosophical Lyceum* (1811); Philadelphia had had her *Philadelphia Medical Museum*, 1804–1809. The *Boston Medical Intelligencer* begun in 1823, then merged into the *New England Journal of Medicine and Surgery*, and finally into the *Boston Medical and Surgical Journal*. New York had her *Medical and Physical Journal*, that lived from 1823 to 1830. In the South, Charleston had her *Carolina Journal of Medicine and Surgery* in 1825, but dying in its infancy, there was no succession of the literary spirit until in 1848 the *Charleston Medical Journal and Review* was begun, and going through many phases preserved its identity fairly until 1877. In the new State of Ohio, the *Medical Repository* was begun in 1826, continuing its publication one year, and in the same State was publisheed at Cincinnati *The Western Medical and Physical Journal*, 1827–'28. In Philadelphia, which was then, as it has always been since, the centre of American medical literature, *The American Journal of the Medical Sciences* had its foundation in 1827. Of all the journals named this is the only one that has had a continuous life (we may also be nearly right in according the same distinction to the *Boston Medical and Surgical Journal*) from a period nearly touching that of the birth of the *London Lancet*. It is wrong to suppose that all of these journals were not worthy representatives of medical science. In our country we think we are safe in saying that medical journals had no foundation other than that of the reputation of the editors as teachers and leaders in thought, the exception might be made of the few journals that had at their backs medical publishing houses. The expiration of so many of these periodicals was due to the death or resignation of the editors, they finding it more profitable after the early years of literary

enthusiasm had been satisfied, sought the more lucrative occupations which riper reputation brought them. In the case of the *Lancet* its present life may be due, we assume, at least, to the impress and influence of its founder transmitted through successors in the same family, circumstances that are very exceptional.

Whatever we may think of the *Lancet* on this side of the water in comparison with its younger rival, the *British Medical Journal* (begun 1857 as a continuation of the Transactions of the British Medical Association), it has maintained a distinct standing in its presentation of the literature of medical science that has made it the most popular of the medical journals in the world. One is always sure to find, besides the most solid and profound topics of the day, the discussion of popular themes in its editorial columns—themes of sanitation and public health and of the welfare of populations as to their occupations—which the sterner judgment of the writers for the old *Medico-Chirurgical Review* always excluded as being rather undignified; but upon this line the *Lancet* has had the final approval of the reading world. How could the English doctor now do without this great journal, or how could the English-speaking doctors of the world supply the loss of such a welcome weekly visitor to their offices!

For the first week of the year 1892 the issue contains 120 double-column pages of reading matter and 80 pages of advertisements, which would be, in the type usually employed in medical text-books, 8vo. size, the equivalent of from 400 to 500 pages.

If there are any of our readers to whom this information may be new, we advise them to try a year of teaching from the *Lancet* and see if they will not find great profit.

Mr. Hutchinson on the Galvano-Cautery Loop.—In a recent article on the "Surgery of the Tongue" (*British Medical Journal* December 7–12). The galvano-cautery loop is a very ingenious instrument, but far inferior for all practical purposes to the cold wire. He never employs a chain or any complicated apparatus. His objection to galvano-cautery is the tendency to secondary hemorrhage.

REVIEWS AND BOOK NOTICES.

A Practical Treatise on the Diseases of Women. By T. Gaillard, M.D., LL.D. Sixth Edition. Enlarged and Thoroughly Revised by P. F. Mundé, M.D. Lea Bros. & Co., Philadelphia.

The profession will welcome this volume as the revised expression of the opinions and experiences of the author, T. Gaillard Thomas. There is, as far as we know, no such scholarly exposition of the matters included in the practice of gynecology as that set forth in this work, in its previous editions and in this its latest form. Dr. Thomas has long held an easy lead in his specialty, and his accuracy of observation and remarkable application of all means to secure his ends, has fastened his reputation for all time among the foremost practitioners in this branch of medicine. We meet again with respect the able classifications which marked all the earlier editions, and recognize the fact that he is in nowise satisfied to have attained an eminence, but is determined to preserve it. The additions made by the editor are not always so distinctly set forth as to indicate to which one belongs the newer ideas—but this will hardly be considered a fault, as Dr. Mundé's reputation will sustain him in the task he undertook and has so acceptably performed. The subject of injury to the perineum is discussed again fully and the necessity for its restoration after laceration insisted upon—no credence being given to the claims that immunity from suffering can follow any neglect to repair it. Immediate repair is advised, and the opinion is clear that but few exigencies arise which will prevent an operation within the first few hours after the birth of a child and the infliction of the injury. For the secondary operation Tait's flap-splitting method is advised as the most satisfactory. We missed with some regret and surprise a more elaborate and better illustrated description of Emmet's latest operation, and that furnished in the text does not agree with the one given in Pepper's System of Medicine, or the later ones given in the medical periodicals. The theory upon which the operation is based, and the methods pursued to complete it have seemed to us an entirely new and justifiable departure from all previous attempts to cure this

troublesome lesion, and its success in the hands of its distinguished originator deserved, we submit respectfully, a more critical exposition than it has received.

While all due consideration is extended to Nœggarath's claim that gonorrhœa is the chief cause of nearly all of the inflammatory conditions of the uterus and its appendages, it is stated that his doctrine is too sweeping in extent, and this seems to be the growing opinion now.

The treatment of chronic endometritis brings out Dr. Thomas' opposition to all intra-uterine applications—his dependence being upon the general restoration of health, cure of laceration of the cervix, reduction of displacements, the extirpation, if possible, of any new growth and the use of ergot for the relief of such uterine enlargement as may exist. There is, no doubt, a universal condemnation of the injection of fluids into the cavity of the uterus, but the use of stimulating applications, as solution of zinc chloride, compound tincture of iodine, carbolic acid, solution of the subsulphate of iron and others of like character, caustic and astringent, have such a large endorsement from the most capable men, that we are not surprised to find that Dr. Mundé takes issue with the views of the author. It appears now that it is a well established custom, based upon safe experience, to introduce some one of the classes of agents mentioned into the cavity of the uterus after the use of the curette, and a late authority has said that only a sharp curette can be relied on to clear up the growths that so freely cover the uterine mucous membrane in this troublesome disease. There can be no doubt that conservative methods have followed from the accidents that resulted from the free, and at one time common, use of intra-uterine medication, and these seem now so safe that the readers of this work will most probably adopt the suggestions of the editor in preference to those of Dr. Thomas.

There is a wealth of instruction in the volume, and the reliance upon such authority as this work, will be increased by its new and enlarged edition. We do not feel the need of an extended notice for this volume, but we wish to call attention to the instructive illustrations, many of which are entirely new to most of our readers, and some new to all.

The work is gotten out in the usual good style and clearness which have characterized the former editions, and it will be a useful and welcome addition to the physician's library.

A PRACTICAL TREATISE ON THE DISEASES OF THE EAR, INCLUDING A SKETCH OF AURAL ANATOMY AND PHYSIOLOGY. By D. B. ST. JOHN ROOSA, M.D., LL.D. Seventh Revised Edition. New York: William Wood & Co., 1891.

Dr. Roosa's book is an old friend, to be found on the library table of specialist and general practitioner, the latter class especially finding in it just the examples of disease he needs to lead him to a diagnosis. Written by the practiced hand of one who knows the straits into which the general practitioner is often driven, he has made plain the dark ways, and by his aid many a reader has been able to render more efficient service to his patients.

The author has done another service to the science of otology, he has written the book which, as far as American literature is concerned, has taken away the reproach, which was almost stereotyped, that there was no science of otology. Even now otology is an unpopular department of surgery compared with any other specialty, but it is by such good work as our author has done that it will attract the attention of the future student and give confidence to the general practitioner in the practice he is compelled to do in that line.

In the preface to this edition the author says the larger part of this work is essentially a digest of his own experience extending over more than twelve thousand patients for which he had the personal responsibility.

The author has always held some peculiar views about the bad effects of quinine on the hearing, substantiating them by cases, but in this particular we must confess his experience runs counter to the observations of physicians in the South who have had very extensive experience in the employment of this universally used drug.

His observations on Deaf-Muteism should be read by all officials having charge of these unfortunates, whether they understand technical medicine or not. "Some asylums for the deaf-mutes in this country," he observes, "are not attended by physicians competent to examine and treat the ear. Many inmates require constant and special care of their ears; especially is this true of those affected with suppuration of the ears, of whom there are about 20 per cent. in the asylums.

The printing and illustrations of the volume are of good quality,

and many of the cuts are entirely new, prepared for this edition from the museum of the late Prof. William Darling.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF BACTERIOLOGY: Being a Concise and Systematic Introduction to the Study of Micro organisms for the Use of Students and Practitioners By M. V. BALL, M.D, late President of the German Hospital, Philadelphia. Philadelphia: W. B Saunders, 913 Walnut St, 1891. [Price $1.00]

ESSENTIALS OF PHYSIOLOGY, Arranged in the form of Questions and Answers Prepared Especially for Students of Medicine. By H. A. HARE, B.Sc., M.D. Third Edition, with the addition of handsome series of plate illustrations from Arnold's "Icones Nervorum Capitis." W. B. Saunders, 1891. [Price $1.00.]

NERVOUS DISEASES AND INSANITY: Their Symptoms and Treatment. A Manual for Students and Practitioners. By John C. Shaw, M.D. With 48 original illustrations, mostly selected from the author's private practice. Philadelphia: W. B. Saunders, 1892.

These volumes are designed for students who are coaching for examinations, and should be carefully looked over by the members of examining boards. They are cheap, and can be, as they have been, made to serve a fraudulent purpose in State examinations. In the form of questions and answers they are most objectionable, and for the student who wants to be true to himself and honest towards the Board of Examiners, nothing we have seen so far is as good as the little book for self-examination noticed in the November JOURNAL.

THE MEDICAL FORTNIGHTLY is the name of a sprightly medical journal which begins its life with the new year in St Louis, Mo.

This journal is conducted by Bransford Lewis, M.D., and has many features about it that will make it acceptable to the fraternity of editors and a large number of subscribers. The original contributions have the *fac simile* signatures of the writers. There are two "process" illustrations, one of the renowned dermatologist Kaposi, the other of St. Bartholomew's Hospital. The list of collaborators is a strong one, and if it means more than an ornamen-

tal literary head-piece, our confrére will have some good material for our selection. The West is capable of so many good things, when they really try, that we have no fear that our younger brother is going to be a sturdy member of the guild.

PRACTICAL ANATOMY. By HENRY C. BOENNING, M.D. F. A Davis, Publisher, Philadelphia. Pp. 458. [Price $2.50.]

With the exception of the section devoted to osteology, this book seems to the reviewer very imperfect. Absence of necessary detail is very noticeable throughout, and too many important facts are omitted to allow it to be a useful text-book. For example, this short description of the common carotid artery, viz: "The common carotid artery on the right side is a branch of the innominate; on the left side it comes from the arch of the aorta. It divides just below the hyoid bone into the internal and external carotid," may be the soul of brevity, but is at the same time an inexcusable insult to that noble vessel.

Many of the illustrations are bad. Altogether, the reviewer has been unable to find any reason for either the existence or the name of the book. R H. W.

SYLLABUS OF THE OBSTETRICAL LECTURES IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA. By RICHARD C. NORRIS, M.D., Demonstrator of Obstetrics in the University of Pennsylvania. Second Edition W. B. Saunders, Philadelphia, 1891. [Price $2 00.]

This syllabus, according to the author's preface, was designed to assist the student in note-taking, and the subject-matter so arranged that uninterrupted attendance upon the lectures is essential to a full knowledge of the cause. If any book helps the student to do real work as this seems to do, we are willing to commend it.

PROPRIETARY REMEDIES.—Thirty years ago Great Britain derived from patent medicines a revenue of $210,000. The same tax now yields $98,500,000 a year All this increase is at the expense of the gulled public; the honest apothecary and the doctor, being large losers.

THE BUNCOMBE COUNTY MEDICAL SOCIETY.

This Society met in stated meeting, at Asheville, on January 4th, 1892.

The meeti g was called to order by the newly elected President, Dr. Karl von Ruck, who, on taking the chair, delivered a short address, in which he made a strong appeal to the members for increased exertion and interest in the labors of the Society. He said the members should, in papers and clinical reports, contribute their best efforts, according to their individual ability, and never be satisfied with anything less. From their professional attainments a high character of work could be expected, which the members would be willing to present anywhere, and not only to a local medical Association. He pointed out the benefits that would accrue from sueh efforts, not only to the Society and its position as an auxiliary to the State Medical Society, and from its influence with the profession in the State and elsewhere, but to the individual member as conducive to individual advancement in proportion to the efforts expended, it requiring no special argument to show that every carefully paper or accurately observed and recorded case from practice, is an important and necessary means for individual advancement in the study of medicine and self-education, even if the paper or report were never read or presented to the profession.

Dr. L. B. McBrayer presented an interesting paper upon Maternal Impressions, in which he reviewed the literature upon the subject and related some personally observed illustrations He expressed the belief that, inasmuch as the evidence showed the possibility of psychical effects upon the mother producing the monstrous, hideous and imperfect reflections of similar impressions upon the offspring, so, by the same principle, the good, noble, beautiful and perfect would result from corresponding influences impressing themselves with equal force upon the mother.

He recommends, therefore, efforts on the part of the professional adviser toward interest and educatio· of the interested public, in a subject capable of bringing about great advancements in the physical and intellectual aspect of society at large, and urges especially higher mental and physical culture of the female sex.

The paper was discussed by Drs. Williams, Ballard, Watson, Ambler and Crawford, all of whom had seen undoubted cases of

maternal impressions of the undesirable sort, and believed that systematic efforts, especially with more intelligent parents, in the direction recommended by the essayist would, apart from the great interest from a psychological standpoint, promise some real advantages to future generations.

Dr. Williams reported a case of injury to the drum membrane with displacements of the ossicles, resembling Ménièrés disease, from which the patient is slowly recovering under local treatment of the injury combined with the use of Politzer's method of inflation, by which latter the ossicles were each time made to assume their natural position, accompanied by an entirely involuntary, complete "turn out" of the patient's body.

Dr. C. E. Hilliard reported a case of gunshot wound, the ball entering near the chin in a downward and backward direction, emerging at the base of the neck posterior, near the vertebral column of the same side, without producing any injury to the vessels or other structures of the neck, the patient making a good recovery under simple dressings of the wounds.

A CHARLESTON doctor named Harriss made experiment with the thermometer to ascertain the ratio between the heat of the body and the upper atmosphere, 3d July, 1806.

THE FIRST INTRODUCTION OF INOCULATION INTO SOUTH CAROLINA was by Mr. Mowbray, a surgeon, who in a short time inoculated 450 persons. [Thacher.] Dr. Ramsay (Hist. S. C.) gives the date at 1738.

THE NEW BORN CHILD OF A FEMALE OPIUM VICTIM DIES FOR NEED OF OPIUM—"Literature, however, shows that when the female opium victum brings forth a child, such offspring is prone within forty-eight hours to die of an apparently causeless collapse. The real cause of such collapse is, however, the need of opium. The child in the first few hours finds itself not only struggling with the new conditions of life, but also totally deprived of its nerve-stimulant, and it dies when its life might have been saved by doses of laudanum perhaps sufficiently large to kill an ordinary infant."—H. C. Wood in *A System of Practical Therapeutics.*

THE INTERNATIONAL EXECUTIVE COMMITTEE OF THE PAN-AMERICAN MEDICAL CONGRESS.

The Committee on Organization of the Pan-American Medical Congress, at its meeting at St. Louis last October, elected the following International Executive Committee:

The Argentine Republic—Dr. Pedro Lagleyze, Buenos Aires.
Bolivia—Dr. Emelio Di Tomassi, La Paz.
Brazil—Dr Carlos Costa, Rio de Janeiro.
British North America—Dr. James F. W. Ross, Toronto.
British West Indies—Dr. James A. De Wolf, Port of Spain.
Chili—Dr Moises Amaral, Santiag.
United States of Colombia—Dr. P. M. Ibanez, Bogota.
Costa Rica—Dr. Daniel Nunez, San Jose.
Ecuador—Dr. Ricardo Cucalon, Guayquil.
Guatemala—Dr. Jose Monteris, Guatemala Nueva.
Hayti—Dr. D. Lamoihe, Port au Prince.
Spanish Honduras—Dr. George Bernhardt, Fegueigal.
Mexico—Dr. Tomas Noriega, City of Mexico.
Nicaraugua—Dr. J. I. Urtecho, Grenada.
Peru—Dr. J. Casamira Ullora, Lima.
Salvador—Dr. David J. Enzman, San Salvador.
Spanish West Indies—Dr. Juan Santos Fernandez, Habana.
United States—Dr. A. Vander Veer, Albany, New York.
Uruguay—Dr. Jacinto De Leon, Montevidea.
Venezuela—Dr. Elias Roderiguez, Caracas.

Hawayii, Paraguay, Santo Domingo, and the Danish, Duch and French West Indies are not yet organized.

Nominations of local officers have been received from a majority of all the members of the International Executive Committee, and a number of the lists have been confirmed by the Committee on Organization. These will be announced as rapidly as acceptances are received.

THE PAN-AMERICAN MEDICAL CONGRESS IN THE UNITED STATES OF COLOMBIA.

Pursuant to nominations by Dr. Pedro M. Ibanez, of Bogota, a member of the International Executive Committee from the United

States of Colombia, the following organization of the Pan-American Medical Congress has been effected in that country:

Vice-President—Dr. Pio Rengifo, New York.

Secretaries of Sections—"General Medicine," Dr. Ignacio Gutierrez Ponce, Paris; "General Surgery," Dr. Rafael Rocha Cassilleo, Bogota; "Military Medicine and Surgery," Dr. Abraham Aparicio, Bogota; "Obstetrics," Dr. Joaquin Maldorado, Bogota; "Gynecology and Abdominal Surgery," Dr. Jose M. Buendia, Bogota; "Therapeutics," Dr. Manuel Plata Azuero, Gunduas; "Anatomy," Dr. Joan D. Herrara, Bogota; "Physiology," Dr. Antonio Bargas Vega, Bogota; "Pathology," Dr. Nicolas Osorio, Bogota; "Diseases of Children," Dr. Ant. Gomez Calvo, Bogota; "Ophthalmology" Dr Proto Gomez, Bogota; "Laryngology and Rhinology," Dr. Louis Fonnegra, Bogota; "Otology," Dr. Carlos Esguerra, Bogota; "Dermatology," Dr. Daniel E. Coronada, Bogota; "Orthopædics," Dr. Juan E Manrigue, Bogota; "Naval Hygiene and Quarantine," Gabriel I Castaneda, Bogota; "General Hygiene and Dermography," ————————; "Mental and Nervous Diseases," Dr. Pablo Garcia Medina, Bogota; "Oral and Dental Surgery," Dr. Guillermo Vargas Paredes, Bogota; "Medical Pedagogics," Dr Jorge Vargas, Bogota; "Medical Jurisprudence," Dr. Leoncio Barreto, Bogota.

Auxiliary Committee (each member being the official representative of the Congress in his respective city).—Drs. Nicolas Osorio, Andres Posada Arange, Jorge E Delgado, Eugenis de la Hoz, Domingo Cagiad, Jose Manuel Rodrigues, Paulo Emilio Villar, Felix M. Hernandez, Rafael Calvo, U. Ribon, Milceades Castro, Cayetrano Lombana, Jose M. Martinez, Isaias Saavedra, Severo Forres, N. Villa, Evaristo Garcia, Miguel Caicedo, Emilio Villamizar.

The following medical societies have been elected as auxiliaries of the Congress: Academia Nacional de Medicina, Academia de Medicina de Medellin, Sociedad de Medicina del Cauca.

The following medical journals have been designated as official organs of the Congress: *Revista Medica*, Bogota; *Revista de Higiene*., Bogota; *El Agricutor*, Bogota; *Boletin de Medicina del Cauca*, Cali; *Andles de la Academia de Medicina de Medellin*, Medellin.

The expresed wish of the profession of the United States of Colombia is for a date of meeting during the Columbian Exposition.

CHARLES A. L. REED,

Cincinnati, January 17, 1892. *Secretary General.*

CORRESPONDENCE.

MORE ABOUT LARGE CHILDREN.

Messrs. Editors North Carolina Medical Journal:

DEAR SIRS:—Dr. Thomas Hill, of Goldsboro, reports a child delivered by him weighing 15 pounds. This reminds me of several large children that have been born in the last fifty years in this neighborhood. About fifty years ago the late Dr. J. A. Russell, who was afterwards my partner in the practice of medicine, delivered a lady of a female child weighing 16 pounds *per vias naturales*. I frequently heard both the doctor and the mother speak of the weight, and am acquainted with the child, who is now a maden lady of about fifty years of age.

In 1859, after a hard labor, but without instrumental assistance, I delivered Mrs. H. of a male child weighing 15 pounds. She had hour-glass contraction, and I had to introduce my hand into the uterus. There was so much delay in delivering the shoulders that the life of the child was sacrificed. At my visit the next day I found this patient sitting up in bed dipping snuff and gossipping with a company of neighbors. She did well. The child measured eight inches across the shoulders. This lady died a few years afterwards of diabetes mellitus.

In 1871 I delivered a woman of a male child weighing 14¾ pounds. She did well, and the child is now a robust, healthy youth. No instruments were used.

Stem, N. C., 1892. JOHN W. BOOTH, M.D.

CURRENT NOTES.

VACCINATION was introduced into Charleston in 1802 by Dr. David Ramsay.

OWING to new sanitary measures in England, there has been a diminution of more than 30 per cent. in the death-rate from consumption since 1861.—*Lancet.*

"MEDICINE is my wife; science is my mistress; books are my companions; my study is my grave: there I lie buried, the world forgetting, by the world forgot."—BENJ. RUSH.

DEATH OF A CENTENARIAN.—Mrs. Rebecca Brown, of Wilmington, died at her daughter's home in Kenansville, this State, at the remarkable age of 103. There are very few authentic cases of such longevity.

FIRST MEDICAL BOOK PUBLISHED IN AMERICA.—Rev. Thomas Thacker, the first minister of the Old South Church, published a work entitled "A Brief Guide in the Small Pox and Measles," 1677.—*Thacker's History of Medicine in America*, Boston, 1828.

IS THIS THE FIRST INOCULATION AGAINST SMALL-POX IN NORTH CAROLINA?—Dr. Hugh Williamson, author of the "History of North Carolina," who was appointed by Governor Caswell as chief medical officer of the militia in 1779–1780 (recorded in Thacher's American Medical Biography), says that during the period of his residence in Edenton (1779) he was invited to Newbern, "for the purpose of communicating the small-pox to such as had not experienced the benefits of inoculation."

THE TOMATO THE APPLE OF LONGEVITY.—Dr. Siccary, a Portuguese Jew, settled in Virginia in the last century [Thacher], introduced that "admirable vegetable the tomato. He was of the opinion that a person who should eat a sufficient abundance of these apples would never die Whether he followed his own prescription is not known, but he certainly attained an old age, and particularly for the climate in which he lived. The tomato is raised in abundance in Virginia and the adjoining States, and is regarded a great luxury, and by some is considered a preservative against biliousness."

DR. JOSEPH HOLT has returned to New Orleans to resume the practice of medicine.—*N. O. Med. Jour.*

THE United States Supreme Court has decided that a court may not order a medical examination of a person in a civil case against his or her will.

DR. FREDERICK BEDFORD, of New York City, died December 28th, 1891, aged 54. He was the son of Prof. Gunning S. Bedford. He was one of the founders of the New York County Medical Association.

A MEDICAL DICTIONARY has just been published by Boas, of Berlin. It has 400 small pages, comprises words in German-French-English, English-German-French, French German-English, and a Latin-German-English-French section.

PEROXIDE OF HYDROGEN AN ANTIDOTE FOR HYDROCYANIC ACID.—Prof. Kobert has proved experimentally that hydrogen peroxide is a valuable antidote for hydrocyanic poisoning It is to be given internally as well as subcutaneously, until the odor of the acid can no longer be recognized in the exhalations and the symptoms subside.—*Boston Med. and Surg. Jour. Jan 14th.*

LINEAR CRANIECTOMY FOR MICROCEPHALUS.—The *Journal of Nervous and Mental Disease*, October, 1891, contains a report of a case in which Dr. J. C. McClintock performed this operation. The patient was 3½ years old, idiotic. and could scarcely raise her hands or feet; she never had been able to sit up. The head was very narrow; the frontal region showed great arrest of development. Protrusion of the right eyeball seemed to be a partially compensatory effect of the intracranial pressure. A strip of bone about 1 inch wide was removed from each side of the head, extending from the posterior superior angle of the parietal bone to just above the superciliary ridge, leaving a bridge of bone about ¾ inch wide over the superior longitudinal sinus. Recovery from the operation took place in little over a week. Marked imgrovement resulted; the child became quieter, exercised her limbs, raised her body, and exhibited a wish to join in play with other children.—*Supplement to Brit. Med. Jour.*

PHYSICIANS more frequently err in refusing credence than in accepting too much.—*H. C. Wood.*

THE Influenza Number is a novelty of the *Times and Register.* The issue of January 16th is devoted to short lectures, editorials, extracts, etc., bearing upon epidemic influenza.

HYOSCYAMINE IN LETTUCE.—We note that Mr. Dymond has discovered in the common lettuce flower an extract which has mydriatic properties which was determined to be due to the presence of hyoscyamine. The amount found is not more than .02 per cent.

POST-PRANDIUM Pleasantries in Colloquial Latin, by Constantine Stauder, is the name of an unique publication designed to give some pleasant practice in the use of colloquial Latin. School-boys, yes and their teachers too, would enjoy this suggestive art, and probably prefer it, above the old method of endermic application.

THE DETECTION OF THE ADULTERATION OF BUTTER.—An instrument which is likely to be found very useful in rapidly detecting adulterations in oils, glycerine, butter, etc, has recently been devised by a continental chemist named Souden, under the name of the "liquoscope." It consists of cylinder of glass containing glycerine, in which are immersed two hollow prisms side by side. When both these are filled with substance having identical refractive indices, a horizontal line seen through them appears continuous, but when their contents have different refractive indices the line is apparently broken, one section being above another.—*Lon. Lancet.*

CHLORINE AND SODIUM made by a new electrical process is described in the *London Lancet*: Electrolytic vessels are charged with a solution of common salt, through which a current of electricity is then passed, thus decomposing and splitting up the salt into its elements, chlorine and sodium. The chlorine is conveyed away to combine with lime to make bleaching powder, and the caustic soda is said to be very pure. This process has the merit of saving 50 per cent. upon the old processes of Leblanc (conversion of salt into sulphate soda, and heating with coal and chalk); or that of Solvay (treating brine with ammonia and carbonic acid gas, carbonate soda being formed and precipitated).

SCHOLAR, SCIENTIST AND SLAVE, VARIOUS PHASES IN THE LIFE OF A MEDICAL MAN.—The MALTINE manufacturers do very much towards entertaining the doctor by various pictorial methods, none of which are below a very good standard of the lithographer's art. If they do give to their Maltine preparations the alternate pages, others are effectually surrendered to the doctor. The series of pictures in the booklet are: Scene in an operating-room at college. The surgeon and his assistants in the ghostly toggery of antiseptic cult, while "the boys"—ah, me! how much better they appear to be than their congoners of the antebellum days—are gazing with varied expression of interest at the splendid operation. The Maltine poetry accompanying it is a liquid rill of treacle:

"He studies, struggles, night and day,
For he must work while others play.
For science's sake—to do his part—
He crushes feeling from his heart:
In clinics or dissecting hall
A man should have no heart at all
Save one of steel. He graduates;
And then, for weary years, he waits"—

the young graduate can supply the rest from his own experience, if not now, pretty soon. We see him next at the bed-side of a very high-toned patient; then driving home through a furious rain-storm, but with a horse and chaise in keeping with the dignity of his calling; the high-toned patient recovered, joins with her husband in depreciating his service—

"They hem and haw and discuss the bill,
And both conclude she was not so ill"—

he is called from the theatre by a messenger, just as the play is at its best moment; he percusses, vaccinates and prescribes at Castle Garden; then—

"On battle-field, 'mid shot and shell"—

he is seen at a safe distance doing his best for the wounded Lastly and truly, he is represented as being interrupted in his cozy office by a drummer, but as he represents *Maltine*, he can only smile and welcome him.

PROF. KEEN says that in cases of Profound Shock the best drug that can be given is sulphate of strychnine. Give a hypodermic injection of one-thirtieth of a grain.—*Col. and Clin. Record.*

PROF. KEEN states that he has almost entirely abandoned Subcutaneous Operations, as by the modern methods of aseptic and antiseptic surgery the open operation is as safe, or safer, for the reason that the surgeon is able to see what he is doing.—*College and Clinical Record.*

PROF. COHEN says that after the Removal of Polypi from the nasal cavity by forceps or snare, the injection of distilled witch-hazel, one part to water four parts, three or four times a day, is much better than the application of the galvano-cautery.—*College and Clinical Record.*

IN SENILE PRURITUS, a German writer (*N. Y. Medical Record*) recommends sponging the body every night with warm water containing carbolic acid and vinegar, and the subsequent application of a powder consisting of one ounce of salicylate of bismuth and four ounces of starch.—*Col. and Clin. Record.*

ATROPINE IN HEMORRHAGE FROM THE LUNGS.—Dr. Stirling, says the *Therapeutic Gazette*, relates a case in which hemorrhage from the apex of the left lung was entirely uncontrollable by ergotin, and all the other remedies usually prescribed. He administered 1-150 grain of atropine, hypodermically, with the result that the bleeding was at once stopped. He found that when the drug was stopped the bleeding recommenced, to be controlled by a further use of the atropine.—*Memphis Medical Monthly.*

ANTIPYRETICS IN INFLUENZA.—Immense quantities are given this season, and we note that quinine is more generally associated with them than formerly. Phenacetin is still in the lead, although acetanilid, reinforced with quinine and strychnine, gives us a safe analgesic; or acetanilid with salicylic acid and extract nux vomica. For the rasping dry cough, opiates do not do well, but small doses of iodide of potassium, with carbonate of ammonia and camphor-water help wonderfully to liquefy the sputum, and give more breathing space. The inhalation of oil of turpentine from a cup of hot water, or of compound tincture of benzoin by inhalation, or

oil of eucalyptus, are very soothing in the laryngeal forms of influenza.

LOWENSTEIN: "On the influence of various purgatives and of enemata upon the secretion and composition of bile."—The results of experiments were: (1) In large doses, none of the purgatives used (gamboge, jalap, aloes, rhubarb and cathartic acid, podophylotoxine) increased the biliary secretion; some (gamboge and podophylotoxine) lessened it. In small doses gamboge and podophylotoxine increased it. Enemata caused no increase. (2) The composition of the bile is little altered; large doses of gamboge lessen the amount of bile acids; rhubarb and small doses of podophylotoxine increase the coloring matter. (3) Absence of bile in the intestine lessens the purgative effects of gamboge, of jalap, and of podophylotoxine, and increases the effect of aloes and rhubarb.—*Bulletin General de Therapeutique.*

HÆMORRHAGES IN THE NEW-BORN.—(1) Hæmorrhage in the new-born is, in nearly all cases, an acute transitory affection, beginning within the first week or ten days of life, and lasting from one to six days. (2) The etiology of this form is perhaps best explained by the infectious theory. (3) In very exceptional cases the disease is due to true hæmophilia, as it is seen in older children and adults. In a small number of cases it is one of the symptoms of syphilis or septicæmia. (4) The mortality from all forms is about 75 per cent. (5) Treatment should be guided by the knowledge of the transitory, and, perhaps, infectious character of the affection, as it is seen in the majority of the cases.—Townsend in *Boston Medical and Surgical Journal.*

PIPERAZANE.—The introduction of piperazane, the new uric acid solvent, is proceeding most enthusiastically. Reports from European sources—Germany, France, England, Italy, etc., where the remedy has been extensively tried during the past six months, are now appearing in continuous round, and all in the most flattering terms. In the United States, where the first supplies were received in October, 1891, confirmatory trials have hardly had time to be concluded, but good reports of the preparation may shortly be looked for from authorities in Boston, New York and Philadelphia. Piperazane should be prescribed for continuous treatment, 1 gramme

per day, dissolved in a quart or more of water—perfectly areated—which the patient is to drink in wine-glassful doses, at frequent intervals The water should not be kept cold, but at a moderate temperature, about 60° to 70° F. Piperazane will dissolve (i. e., unite with) twelve times more uric acid than will lithium, and the resulting urate salt is seven times more soluble than urate of lithium.—*Notes on New Pharmaceutical Products.*

Local Chloroform Anæsthesia.—In the *Medical Press* for November 18, 1891, a correspondent reports the following method of producing local anæsthesia: "During the past winter I removed a small tumor from the hand of a nobleman in Rome, having first frozen the part by means of chloroform applied by spray. Unwilling in this case to administer it internally, and anxious to try its effect externally, I sprayed his finger for about ten minutes with chloroform. Before commencing the operation the finger became quite cold, and felt like a piece of ice. The removal of the tumor subsequently was not felt by the patient. The chloroform did not produce any effect on the circulation, nor on the nervous system. The operation lasted about five minutes, the patient declaring he felt nothing I drew the cut surfaces together with silver wire, which I removed on the fifth day, the part healing by first intention under carbolic acid lotion. —*Therapeutic Gazette.*

Phenomena of Life and Death —The necrology of the old year, which ended but a short time ago, will be read by thousands with mournful interest. In perusing these sad records the mind unconsciously reverts to the well-known axioms, which tell us that the average human life is a span of but thirty-three and one-third short years. That one-quarter of all born die before they have seen the opening of their seventh year; one-half before reaching seventeen; so that those who pass their "teens" enjoy a felicity unknown to one-half the human species. In every thousand persons only one reaches the age of 90; in every one hundred only six reach to or beyond the age of 65, and not more than one on an average in five hundred lives to be 80 years old. There is said to be upwards of 1,000,000,000 human beings on the globe; of these one-third die every year, 91,824 every day, and 3,730 every hour, or 60 every minute. Married men are said to live longer than single ones; tall men longer than short ones. Women have more

chances of life in their favor previous to the fiftieth year than men have, but fewer afterwards.—*Notes on New Pharmaceutical Products.*

A Lesson from the United States Army Medical Department.—Every medicine used by the United State- Army Medical Department is examined by an expert chemist before it is purchased. Twice a year the Surgeon General advertises for proposals for supplying the Army with medical and hospital supplies. This advertisement compels bidders to submit samples of their goods for examination. When received, these are stripped of every label or mark by which their makers could be recognized and placed in the hands of the Army chemist, Dr. W. M. Mew: Thus he is enabled to examine every sample unbiased by the name of the manufacturer. By the results of this examination the bids are accepted or rejected. After the goods are received by the department, a set of samples is again sent to Dr. Mew to determine whether the goods are equal to the sample first analyzed. A writer in the *Pharmaceutical Era*, from which we have taken these facts, says that samples of the same article often exhibit great variation. Thus the chemist pointed out five samples of the same drug, one of which was forty-four times stronger than the lowest. These were samples of nitre, and had the lowest lot been purchased by the Department, the Army surgeons would have wondered at the lack of results from their prescriptions of nitre. This system has had the effect of furnishing the Medical Department with the best goods Army surgeons are the only ones who can be sure of the quality of every drug that they prescribe. Dr. Mew's work has often been revised by other chemists because of the disputes over his decisions by the contractors, but during the seventeen years he has been on duty his reports have never been thus shown to be inaccurate. In this record he takes a pardonable pride. From the numerous samples of medicines found far below the standard, it is clear that the medical profession outside of the Army must have many prescriptions filled with drugs very deficient in quality. In the present state of things how can a physician know whether he is prescribing what he desires? If the nitre submitted to the Army chemist varies from one to forty-four in quality, how shall the doctor tell which of these strengths goes into his prescription?

The physician is not an analytical chemist, nor even a pharmaceutical chemist, so that he cannot settle the strength of his drugs by his own skill. He may estimate the strength of a certain preparation by the effects upon a given case. True, but the patient may die from lack of the proper medicine while he is thus experimenting. Besides, when he has settled one bottle another may be placed in stock of a different strength. Two courses lie open to him. One is to have as his friend a skilled pharmaceutical chemist, who shall test every sample of drug for him and his other customers, and thus place the doctors patronizing his place of business in a position identical with the Army physicians. Such men are hard to find in the retail drug trade, but when they are found they are simply invaluable to the physicians of their acquaintance. The other alternative is to ascertain, as best one can, the manufacturers that are the most competent and honest, and habitually prescribe their products. It were, however, preferable to have one's own chemist to do all this work for him, so that prescriptions may not fail of their expected effects owing to defects in the quality of the drugs administered.—*American Lancet.*

THE FIRST RAILWAY TO JERUSALEM.—The first railway to Jerusalem will, we are told, be opened in the spring of the coming year. It is a short line, running from Joppa, the nearest port on the Mediterranean, and intended to accommodate the growing passenger and other traffic between that place and the Holy City. The work of construction is being carried out by a French company, who began laying the line in April, 1890. It is fully expected that the speculation will be a paying one. The company anticipates, at all events, making large profits, after paying the shareholders a guaranteed interest of 5 per cent. It is stated that over 40,000 persons land at Joppa every year in order to make a pilgrimage to Jerusalem and other spots celebrated in sacred history. The number of steamers and other vessels putting into the port of Joppa is now upward of 800 a year, the destination of most of the passengers and merchandise they convey being the capital of Palestine. In evidence of the recent rapid growth of the traffic, it may be mentioned that Joppa has trebled its population within the last thirty years. Tourists will be able to take a return ticket from the port in question and Jerusalem for 20 francs, and what is more,

they will be able to do the journey in a far shorter time with infinitely greater safety than hitherto. The rush of tourists from all parts of the civilized world to Jerusalem will, if the expectations of the promotors are fulfilled, be something phenomenal in the immediate future.—*Medical Review.*

BARTRAM'S GARDEN.—The city of Philadelphia has, owing mainly to the exertions of Mr. Meehan, succeeded in obtaining possession of almost the first botanic garden founded in the colonies. It was planted in 1720 by John Bartram, then only 19 years of age, who was a most enthusiastic botanist and student. His son William, who was born at the garden in 1739, was as greatly interested in all that related to plants as was his father. In addition to the work of the farm, which they owned, both found time to collect such plants as made the garden famous and unrivaled. The elder Bartram died in 1777, aged 77, but the work was energetically continued by his son William. The latter, among other accomplishments, had a considerable love and talent for drawing. He traveled constantly, and published accounts of his wanderings. He died, unmarried, in 1823, in the eighty-fifth year of his age, having retained his faculties to the end. A few minutes only before his decease he had penned a description of some favorite plant.—*Pharmaceutical Record.*

PEROXIDE OF HYDROGEN IN THE TREATMENT OF PURIFORM CAVITIES AND OF FISTULA.—Dr. H. Graff, a military surgeon of Christiana, publishes in the *Norsk Magazine* the result of his experience of peroxide of hydrogen in the treatment of abscesses which do not admit of being laid completely open so as to subject them to antiseptic treatment, and of fistulous sinuses offering the same difficulty. The author recommends, in preference to all other antiseptic fluids, irrigation with a 15-volume solution of peroxide of hydrogen, which he employed with the greatest success at the Royal Hospital of Christiana. The great development of gas which takes place in consequence of the decomposition of the peroxide when coming in contact with blood or pus, removes the pus very effectually. The irrigation, followed by proper antiseptic dressing, causes a considerable decrease of the discharge, and healing takes place in a remarkably short time. In the case of cachectic

patients, when granulation is slow. Dr. Graff recommends that the irrigation should be occasionally changed for injections of balsam of Peru and ether. The treatment is especially valuable in cases of indurated wounds with puriform cavities. It is, of course, necessary to make due provision for rapid and free drainage, as the development of much gas may otherwise produce serious pressure.—*Journal of the American Medical Association.*

READING NOTICES.

DELIRIUM TREMENS.—

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COD-LIVER OIL AND CREASOTE IN CONSUMPTION.—Dr. Julius Summerbrodt, Professor at the University of Breslau, has recently published his experience in the use of creasote in consumption. He states: "After nine years employment of creasote, in thousands of cases of consumptive patients, I have reached the conclusion that we can cure with creasote sufferers in the initial stages of lung tuberculosis, and not only the initial stages, but also longer-seated and severer forms may be completely and permanently cured. Creasote is for countless sufferers an excellent remedy, thus far unequalled by any other for tuberculosis of the lungs. I consider the most desirable form for administering creasote to be the capsule, adding a readily-absorbable fat, as cod liver oil or olive oil."

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ORIGINAL COMMUNICATIONS.

ALBUMINURIA:

Its Relations to Surgical Operations.

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By *albuminuria* is meant an expression on the part of the kidneys that *something is wrong;* that the great excretory organs are more or less damaged, and not doing their whole duty. I am well aware that this "free translation" is open to criticism; that the mere presence or absence of albumin in the urine is not always a crucial test by which we may estimate the condition of the kidneys; but, taken in connection with the physical properties of the urine, it is a symptom of far-reaching significance. It is also desirable to know how much *urea* is being excreted, and whether or not *casts*

are present, but this is not always practicable, and we are often forced to rely on the albumin tests and the physical properties of the urine.

We will discuss the relations of albuminuria to surgical operations under the following heads:

I. Does an operation ever induce albuminuria in healthy kidneys—
   a. Through the influence of the anæsthetic employed?
   b. By the operation, *per se?*

II. Does albuminuria increase the dangers of—
   a. The anæsthesia?
   b. The operation, *per se?*

III. Does an operation ever relieve albuminuria—
   a. By overcoming the condition for which the operation was done?

As most operations are done under anæsthesia, the question before us cannot be intelligently studied without considering the influence of anæsthetics; however, there will be no attempt to discuss anæsthetics except as they affect the kidneys. Let us first notice the effects of ether on—

1. Healthy kidneys.
2. Diseased kidneys.

1. There have been a number of experiments and observations made to determine the effects of ether on the kidneys. One of the latest papers bearing on this point is that of Dr. Robert F. Weir (*New York Medical Journal*, March 1, 1890). After reviewing the literature tending to show that ether *injuriously* affects the kidneys, he notices the elaborate paper of Dr. Feuter, of Berne (*Klinische und experimentelle Beobachtungen über die Aerthernarkose*, 1888), in which paper are reported 150 clinical and 13 experimental observations on ether narcosis. Dr. Feuter speaks of the so-called "American warning"—the danger of the kidneys. Six dogs whose urine was free from albumin, were etherized for an hour and a half to three hours; in none of them was the slightest trace of albumin developed, although in four the ether was purposely pushed until death ensued. Feuter concludes from his 150 cases and 13 experiments: "That ether has no perceptible effect

upon the healthy kidneys of animals, who, moreover, are more susceptible than mankind to its influences."

Weir cites 35 cases occurring under his own observation—1 case (of etherization) lasting nearly an hour without operation, and 34 cases for various operations other than in the abdominal or genito-urinary regions; these regions are excluded because an operation in these parts is liable to cause albuminuria irrespective of the anæsthetic, as we will notice presently. The 35 cases were free from albumin before etherization, while only 9 showed a transitory trace afterward, 26 presenting no change, either chemically or microscopically.

Dr. H. B. Millard, in a personal communication, says he does not think an anæsthetic can produce albuminuria in *perfectly healthy* kidneys.

2. There is an opinion prevalent among surgeons that while the safety of ether is admitted when the kidneys are healthy, yet if there is reason to suspect *nephritis*, ether is strongly contraindicated. Dr. Gerster voiced this sentiment in a paper read before the New York Academy of Medicine in 1887; but there has been considerable reaction since then, and I understand that even in Dr. Gerster's hospital (the German Hospital, New York) ether has superseded chloroform.

Feuter gives 4 cases, the subjects of albuminuria when etherized: 1 for diagnosis, 1 for exsection of the hip; 1, a five-month's old baby, with abundant albuminuria from previous scarlatina; 1, the subject of tuberculosis, etherized three times, and whose kidneys showed at the post-mortem at a much later period tubercular deposits and amyloid changes. In none of these cases was there an increase of the albumin, and in the case of the child there was an actual disappearance on the day of the operation and for three days thereafter. Feuter states that he has never observed any increase of albumin or other symptom which would lead him to suspect any advance in the kidney lesion, either during or immediately after an etherization. He therefore concludes that "ether is not dangerous in persons whose kidneys are only slightly diseased," and that "subsequent disturbances of the circulation in the kidney, when met with, are very transitory and rapidly disappear."

Weir gives 5 cases with albumin before etherization, 3 of which

showed no increase of albumin afterward, while in 2 there was a slight increase, but no unpleasant symptoms developed.

Much more extended observations must be made before this question is definitely settled, but there is reason to believe that the dangers of ether as regards the kidneys have been magnified.

The cases given in the well-known papers of Dr. Emmet in 1872, Dr. Turnbull in 1880, Dr. Norris in 1881, Dr. Carpenter in 1886, and Dr. Millard in 1887, all given to show the injurious effects of ether on the kidneys, are, most of them, open to the objection that possibly other influences than the anæsthetic might account for the renal disturbances. These influences will be noticed later.

The effects of chloroform on—

1. Healthy kidneys.
2. Diseased kidneys.

The literature on this point is singularly scarce. However, it may be stated in general terms that chloroform is understood to have little effect on the healthy kidneys, and even when advanced organic (renal) lesions are present, chloroform may be used with comparative safety, certainly with less risk than ether. But of late there seems to be a tendency to question the safety of chloroform as regards the kidneys. Wood (*Therapeutics*, p. 321) says: "Chloroform is undoubtedly, at least in part, eliminated as chloroform with the breath, also with the urine. Fubini found it in the urine five hours after its inhalation. Albuminuria has been noticed in animals and man after chloroform narcosis."

A Russian physician, has recently observed the effects of chloroform on the kidneys in 50 operative cases. All the cases were free from albumin before operating, while 19 showed this symptom after operating.

In a lecture at the New York Polyclinic two years ago, the writer heard Dr. John A. Wyeth discuss the relative merits of chloroform and ether, on which occasion he cited many cases of renal complications occurring after chloroform narcosis.

I have lost 2 cases after using chloroform—1 from acute nephritis and 1 from suppression; but as in one an operation for hemorrhoids was done, and nephrotomy in the other, I am inclined to attribute the fatal results to the operations rather than the anæsthetic, for special reasons, as we shall see presently.

Dr. Millard (*Medical Record*, January 29, 1887) says: "Chloroform, as regards its effects on the kidneys, seems safer than ether. However, I do not regard the use of chloroform in chronic nephritis absolutely unattended with danger."

In deference to the prevailing sentiment, it has been my custom for some years to use chloroform when I had reason to believe the kidneys were diseased; but I must confess my experience with this agent and the study incident to the preparation of this paper causes me to doubt very seriously the correctness of this practice.

We now come to the proper consideration of the question:

DOES AN OPERATION, PER SE, EVER INDUCE ALBUMINURIA IN THE HEALTHY KIDNEYS?

That albuminuria sometimes follows an operation cannot be doubted. In approaching an operation we are in the habit of giving due weight to the dangers laid down in the text-books as common to all operations, namely: shock, hemorrhage and sepsis, while I fear we are prone to overlook the dangers that might arise through the kidneys. Every surgeon can recall cases which reacted well from the operation, had no hemorrhage—in a word, were doing all right, when perhaps at his next visit his attention was called to a lessensd flow of urine, which, on inspection and analysis, proved to be turbid, smoky, of high specific gravity, and more or less albuminous. Prompt measures may relieve this condition, but the severer cases pass from bad to worse, ending fatally. I have learned to analyze the urine both before and after an operation. A point worth remembering here is, to inquire whether or not your patient sleeps well at night, or if his sleep is disturbed by dreams or delirium, for often I have found this condition associated with retention or suppression; on the other hand, a patient may be very quiet and apathetic in the presence of profound renal disturbance.

Trouble arising from the kidneys may be illustrated by case from practice:

R. P. D., aged 38 years, had always enjoyed good health except for the last few years he had suffered from hemorrhoids; he also had a stricture, which gave him no trouble except when the hemorrhoids were troubling him. He was a very large man, weighing about 220 pounds, and had a large business on his hands. Six

months before operating I examined him for life insurance, and found nothing abnormal about his urine. There was no urinalysis made just before operating, as I felt sure his kidneys were doing good work. Under chloroform narcosis the largest tumor which was muco-cutaneous, was incised around the base, transfixed with a double silk ligature, tied in halves, and trimmed off with scissors. This was on Monday; on Wednesday it became necessary to use the catheter, and at regular intervals thereafter. On Saturday he had a rigor; on Sunday a much harder one, followed by continuous fever, reach in the p. m. 102° to 104°, with pain in the back, scanty flow of highly albuminous urine (40 per cent. bulk), and death on Wednesday night, ten days after the operation. Both Dr. W. A. Woollen, who was in constant attendance, and Dr. R. L. Payne, Sr., the consulting physician, attributed his death to the nephritis.

Another case in point is that of—

J. B., aged 51 years, seen by courtesy of Dr. J. O. Walker. He had been sick seven weeks, with symptoms referable to the left lumbar region; he was passing in twenty-four hours eight ounces of urine, loaded with urates, which showed *only a faint trace of albumin;* the specific gravity was 1029, and the nitric acid test by the contact method gave the characteristic reaction for *nitrate of urea.* A diagnosis of pyonephrosis was made; and, with full aseptic precautions, nephrotomy was done by the vertical lumbar incision. Pus was found in the kidney substance, the cavity irrigated, and drainage established. Chloroform was employed, and *not more than three drachms* were used. I never saw a patient react better; he came from under the anæsthetic perfectly rational; pulse 80, and temperature 98°. During the first twenty-four hours only seven ounces of urine were excreted; this was drawn by catheter, and found to contain less urates, *but* 20 *per cent. of albumin.* After this time only one ounce of bloody urine was made, the patient dying at the close of the fourth day of suppression of urine.

Albuminuria as the result of an operation may be brought about in two ways, namely:

1. By reflex action.
2. By sepsis.

1. That disturbance of function, and even organic lesion, may be

produced by *morbid reflex action*, is an admitted fact, and often observed. A case showing how the kidneys may be thus affected came under my observation about four years ago, by courtesy of Dr. Woollen:

H., aged 7 years, complained of pain and soreness in ileo-cæcal region, had some fever, and was confined to bed. There was *complete suppression of urine for three days*, the catheter being repeatedly used without getting any water. Appendicitis was diagnosed and preparations for an operation made. Some delay occurring, the father, without our knowledge, gave one teaspoonful of Frey's vermifuge, which contains Jerusalem oak; the next morning the boy passed by the bowel a ball of lumbricoid worms, which the father untangled and counted to contain sixty worms. Within twelve hours after discharging the worms the boy passed unaided *six or eight quarts of urine*. He speedily convalesced.

Peyrani (Flint's *Physiology of Man*, vol. iii, "Secretion," p. 28, *et. seq.*) has shown that the sympathetic nerve has a remarkable influence over the secretion of urine, galvanization of these nerves increasing the amount of urine and urea, while section of them causes both urine and urea to sink to the minimum.

Bernard proved long ago that albuminuria can be produced by puncture of a certain spot in the floor of the fourth ventricle.

Edes (Pepper's *System of Medicine*, vol. iv., p. 40) says: "Lesion of the cerebral peduncles, section, destruction, or irritation of the spinal cord and irritation of the renal nerves, are also causes of albuminuria."

Millard (*New York Medical Journal*, May 9, 1891), p. 527) quotes from an interesting paper presented to the Paris Academy of Sciences, by Drs. Arthaud and Butte, on "Neuropathic Albuminuria." This type of albuminuria is characterized by preëxisting and coexisting symptoms in the viscera enervated by the pneumogastric nerve. The irritation to the pneumogastric in these viscera is reflected through the vasomotor system to the kidneys, causing albuminuria and nephritis.

It seems needless, however, to cite further proof that albuminuria can be induced by reflex irritation, but I wish to call attention to the fact that this condition is very much more likely to occur after operations in certain parts of the body than in others. This is specially true of the abdominal and genito-urinary regions, which

is readily explained by the anatomy and physiology of the sympathetic nervous system in these parts. The solar plexus, or "little brain," presides over the abdominal and pelvic viscera, the connection with the kidneys being very close through the medium of the renal plexus, which is formed by filaments from the solar and aortic plexus, semilunar ganglia and lesser splanchnic nerves. From the renal plexus fifteen or twenty filaments, with numerous ganglia developed on them, pass into the substance of the kidney with the arteries (Gray's *Anatomy* and Flint's *Practice*, *loc. cit.*, vol. iv). The intimate and rich supply of every part of the parenchymatous and circulatory system of the kidneys is ably shown in a paper by Dr. Holbrook on "The Termination of the Nerves of the Kidneys," read before the American Society of Microscopists, and given in Millard's work on *Bright's Disease*. According to him the nerves supplying the kidneys are mainly of the non-medullated variety, sometimes surrounding the arteries in bewildering number, encircling them around, above and below, freely branching, bifurcating, and supplying all the neighboring formations with a large number of delicate fibrillæ, a plexus encircling every tubule; supplying the connective tissue extending into the layer known as the *membrana propria*, and even piercing this membrane and penetrating into the epithelia and the cement substance between them; the nerves also give off delicate ramules to the afferent vessels, by which they enter the tuft and produce a delicate plexus spun around the capillaries. The distribution of nerves is richer in the convoluted and narrow than in the straight collecting tubes." Therefore we can easily see how any irritant to the abdominal or pelvic viscera might be reflected to the kidneys, disturbing their functions, and, if continued, produce organic lesions.

Our fellow-member, Dr. Engelmann, in an excellent paper entitled "Renal Disease Following Utero-Ovarian Lesions," read before the American Gynecological Society, 1889, says: "Functional derangement, and, finally, morbid changes, are produced by nervous influence emanating from diseased pelvic viscera: (1) As reflex phenomena, or (2) by perverted nerve action by the secretory nerves due to the intimate connection of the uterine and renal plexus." Further, he says: "Suppression of urine occurs as a reflex, more generally speaking, hysterical symptom, and may lead to pyelitis, a mild nephritis, or hydronephrosis" After citing a case of nephri-

tis following spasmodic stricture of the urethra, he says: "I believe such cases to be more frequent in connection with pelvic disease than we may suppose, as the slight symptoms produced are overlooked amid the varying pains of the primary disease."

Weir (*loc. cit.*) says: "It may be stated at this period—and in this I think surgeons will agree—that it is well known that any operative procedure with or without an anæsthetic, upon the genito-urinary tract, is apt to be followed, from septic or mural influences, by renal complications. An objection can also be raised against the renal cases reported as occurring after laparotomy, because it has been fully established by the researches of Englisch and others, that such traumatisms are prone, through the influence upon the solar plexus, to beget albuminuria." He gives a case of gastro-enterostomy, done for simple pyloric stenosis, to illustrate the influence of an abdominal operation. Prior to the operation repeated analysis of the urine failed to discover either albumin or sugar, but within forty eight hours after operating ½ of 1 per cent. of albumin and 4 per cent. of sugar were found in the urine, also granular and epithelial casts. These all disappeared within forty-eight hours thereafter. During the operation the hand encountered and recognized the pancreas and left kidney; this, or possibly some contact wit solar plexus, Dr. Weir thinks, would readily explain the transitory albumin and sugar.

We are all familiar with the disturbance that occasionally follows the simple passing of a catheter [Professor W. T. Briggs relates a fatal case occurring after this simple operation] or sound. Now, excepting those cases due to sepsis, I believe this so-called "urethral fever" is nothing more nor less than a reflex disturbance of the kidneys, sometimes of the most trivial nature, sometimes amounting to complete suppression, or acute nephritis.

2. Nephritis may follow an operation as the result of *septic* influences.

Senn, in his great work on the *Principles of Surgery* (p. 327), says: "If septicæmia follow an operation or a severe accident, it is sometimes almost impossible to decide whether the pronounced loss of strength should be attributed to shock, the anæsthetic, or the beginning of an attack of septicæmia." The same is true of nephritis following an operation; but, reasoning from analogy, a careful elimination of the influence of the anæsthetic employed,

and the testimony of clinical cases, we can easily demonstrate the occurrence of nephritis as a result of septic poisoning.

The albuminuria complicating the infectious diseases (as diphtheria) is believed to be a septic process, due either to the specific germs present or to ptomaines produced by them. (Stewart's *Lectures on Albuminuria*, p. 129; and Keating's *Cyclopedia of Diseases of Children*, article on "Diphtheria.")

Dr. Matthews Duncan (Stewart, *loc. cit.*, p. 127), gives 16 cases of uncomplicated parametritis, in which 6, or 37½ per cent. had albuminuria, the albumin gradually disappearing as convalescence was established; and it appeared to be more frequent in cases that went on to suppuration.

Weir says: "Is it not possible to explain the development of important symptoms in those who not only have evidence prior to an operation, but in those who have no evidence of disease prior to an operation, by the presence of a septic process—surgical fever or septicæmia, as you may prefer—originating in the wound? In other words, how little of a septic process is necessary to choke up the kidney?" I am inclined to believe that the renal risks that happen from time to time to a patient undergoing an operation come not so much from the anæsthesia as from the septic processes which are so often encountered, even in a well-carried-out antiseptic operation."

It is stated that operations about the mouth and rectum are specially liable to produce septicæmia. The hæmorrhoid cases given above, and which ended fatally by nephritis, probably belongs to the class due to sepsis.

DOES ALBUMINURIA INCREASE THE DANGERS OF OPERATION?

It having been shown that an operation may produce renal complications in healthy kidneys, particularly when done in certain regions, it naturally follows that the preëxistence of albuminuria would augment the dangers incident to an operation. Apart from the rôle a partially crippled kidney might play in producing more extensive lesions, the local trouble, even though limited in extent, would certainly be liable to act as a hindering cause in the elimination of poisonous substances, especially when the amount of such substances, whether those normally excreted, as urea, or produced

by disease, as ptomaines, be greatly increased. Again, it is well known that the brunt of any shock or exposure falls usually on the "weakest part."

However, it is not pretended that albuminuria, minima or maxima, always gives trouble as the result of an operation; but I do mean to say that albumin in the urine indicates a condition of the kidneys which imposes an additional risk to any operative procedure. Clinical experience bears out this assertion.

Dr. Millard (in a personal communication) says: "I have known surgeons to attribute uræmic symptoms and renal congestion, following an operation, to the shock; I have believed, however, that in such cases as I have seen renal difficulty or *albuminuria preëxisted.* In mild albuminuria, where the kidneys *are perfect in their excretory functions*, the risk need not be great; albuminuria must, however, add something, and sometimes a *great deal*, to the risk."

I take it that it is hardly necessary to cite many cases or opinions on this point, so I shall refer to only one case, and the opinion of the distinguished surgeon who operated. As is well known, the Emperor Louis Napoleon died January 8, 1873, after the second lithotrity at the hands of Sir Henry Thompson. The post-mortem revealed advanced kidney disease. A short while after this, in a clinical lecture on the "Influence of Renal Disease on the Choice of an Operation for Stone in the Bladder," Sir H. Thompson said: "I never operate for stone without first ascertaining the condition of the urine; so that if I undertake an operation for a patient manifestly the subject of renal disease, it is in full view of that fact, and because it may be absolutely necessary that surgical relief must be attempted at all hazard.' (*Lancet*, 1873, vol. i., pp. 58, 113, 331; vol. ii., p. 624.)

DOES AN OPERATION EVER RELIEVE ALBUMINURIA BY OVERCOMING THE CONDITION FOR WHICH THE OPERATION WAS DONE?

While an operation may produce albuminuria, and while an already existing albuminuria may greatly increase the dangers of an operation, we have abundant proof that an operation is often the means of speedily abating a pronounced albuminuria. This can be true only of recent albuminurias, such as that complicating strangulated hernia and acute sepsis.

Dr. Frank Stewart (*loc. cit.*, p. 128) cites 22 cases of strangu-

lated hernia with marked albuminuria, in all of which operation was done, when the albumin disappeared or began to diminish, and was all gone in three days.

I operated on a man this year for strangulated hernia, in whom twelve inches of the bowel was found to be gangrenous, and whose urine, which was scanty, contained 25 per cent. albumin (bulk) immediately before operating, and only 7 per cent. in the first water passed after operating—about four hours. The amount of urine increased from day to day, while the albumin diminished to a mere trace in a short while.

In February last I did an external urethrotomy without a guide on a bright mulatto man with stricture, retention, urinary extravasation, a high degree of sepsis and 30 per cent. of albumin in his urine. The albuminuria rapidly disappeared after the operation.

CONCLUSIONS.

The conclusions of this paper may be briefly stated as follows:

1. That neither ether nor chloroform rarely ever injures healthy kidneys.

2. That when renal disturbances from the use of an anæsthetic, the kidneys being healthy, do occur, they are due rather to prolonged narcosis, exposure of the patient, or perhaps to the combined influences of the operation and the anæsthetic.

3. That a mild degree of albuminuria or nephritis, especially if recent, is not a contra-indication to the use of chloroform or ether.

4. That even in the presence of advanced and extensive renal changes an anæsthetic may be employed, provided the patient or family are advised of the additional risk.

5. That of the two anæsthetics usually employed, it is yet a mooted question as to which is the safer, so far as the kidneys are concerned, unless it be in obstetrical operations.

6. That, while it is by no means the rule, profound functional disturbance, and even organic lesions, may be induced by an operation, apart from the influence of the anæsthetic.

7. That such renal changes are due to reflex sympathetic action, or sepsis, or both.

8. That operations in certain regions, notably the abdominal, genito-urinary, about the mouth and rectum, are specially liable to produce renal complications.

9. That a healthy condition of the kidneys minimizes, but does not obviate, the dangers referred to

10. That albuminuria is always indicative of renal lesions, and should be regarded with distrust, but is not a positive contra-indication to an operation.

11. That when albuminuria is associated with other evidences of advanced renal changes, no operation should be undertaken without first candidly stating to the patient or friends the dangers incident to the condition of the kidneys.

12. That, paradoxical as it may seem, an operation will sometimes relieve an albuminuria due to acute affections.

13. That no surgeon is justified in undertaking an operation without first knowing the state of his patient's kidneys.

I am fully conscious of the fact that this imperfect paper contains many statements and errors which invite criticism; but the sacred writer hath said: "Iron sharpeneth iron;" so it is for the very purpose of provoking a discussion that this subject has been classified as above and brought before you to-day. I would not underrate the dangers of anæsthesia; I would not overrate the dangers of operations, nor would I magnify the importance of albuminuria, but this question, in all of its phases, is one of practical import, and every surgeon is liable to be called upon at any moment to answer some one, perhaps all, of the issues raised. Therefore I deem it not impertinent to ask a full and free expression of opinion by the Fellows of this Association.

THE NERVOUS AND MENTAL PHENOMENA AND THE SEQUELÆ OF INFLUENZA.

By Charles K. Mills, M.D. (Read January 13, 1892.)

All practitioners have been struck by the prominence of nervous and mental phenomena in influenza; and much has been written, but mainly in a desultory way, about the symptoms of the disease which are referable to the nervous system, and its more or less persistent nervous and mental sequelæ. The part played by the nervous system in the etiology and history of the disease has been variously interpreted. One holds that it is a "nervous disease,"

without explanation; another describes it as a pneumogastric neurosis; another as a neuropathy due to ptomaine poison. According to Blocq, cited by Church (Church, *Chicago Medical Record*, 1891(, the primary infectious action takes place upon the nervous system during the disorder, while sequelæ are to be attributed to secondary infection from ptomaines. Cheston Morris (Morris, *American Lancet*, March, 1891), of Philadelphia, advances the theory that the general symptoms of influenza may be traced to a derangement of function, or partial paralysis of the pneumogastric nerve, and that the affection is brought about by conditions of the atmosphere, which particularly tax the cardio-pulmonary apparatus which is regulated by this nerve, a view which, after all, relegates the disease to an atmospheric or infectious cause. Graves long ago referred the bronchial and pulmonary symptoms of grippe to lesions of the nervous power of the lungs, and Blakiston regarded it as a disorder of the nervous system, with concomitant derangement of the organs of digestion, circulation, etc. Levick (*Amer. Journal Medical Sciences*, January, 1864, and republication in pamphlet form, with notes of the influenza of 1889–'90), who cites the last two authorities, holds that certain symptoms are produced when the poison is expended on the sensorium, and certain others when its influence is chiefly exerted on the respiratory centres.

The analogies or relationships between influenza and other diseases generally recognized as belonging to the nervous system, either primarily or because of the situation of their most notable lesions, have been strongly brought out by able writers, as by Levick, for instance, who has even suggested that epidemic cerebro-spinal fever, or cerebro-spinal meningitis, may be simply a malignant form of influenza, a view to which he was led because of the resemblance in the symptoms of the two diseases which differ in degree rather than in nature, and also because for three centuries the two have occurred coincidently or in close sequence.

Grasset and Rauzier (Leçon sur la Grippe de l'Hiver, 1889–'90; Montpelier and Paris, 1890; Monograph of 98 pages) lay great stress on the enormous predominance of the nervous over the catarrhal elements in the epidemic, as evidenced in the high fever, great cephalalgia, the marked delirium, the widespread pain, and the excessive nervous irritability. They refer to cases communicated by M. Coustan, in which the entire symptomatology of the

disease seems to have reduced itself to a horrible migraine. They review the literature which shows that writers of various countries are unanimous in proclaiming the importance of the nervous element—referring to Austrian, Russian, Belgian, German, English and Polish contributions. According to Schmitz (*Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medizin*, p. 179, 1891; cited in *American Review of Insanity and Nervous Diseases*, December, 1891)), who read a paper on the subject before the Psychiatric Society at Bonn, influenza is a disease of the nervous system with secondary involvement of the heart, lungs and digestive organs. In several hundred cases which he observed the nervous symptoms were always primary, followed in every case by secondary involvement of the other organs.

What seems to be needed is an analysis and practical grouping of the facts, almost too numerous to handle, which shows the important part played by the nervous system in the development, progress and results of the disease. How is the nervous system affected by influenza? What are its primary or direct defects on the nervous system, and what are some of the more persistent and permanent impairments, and how are these determined by the disease? What are its acute nervous and mental phenomena, and what are the most common sequences? What is the probable pathology of these states, and what treatment is best in view of the neurotic characteristics of the affection?

The briefest consideration of the subject brings forcibly to mind the fact that all diseases of infectious or toxic origin—epidemic, endemic, sporadic or accidental—may strike any or all parts of the nervous system with a result which will be proportionate: first, to the virulence of the infecting agent; and, second, to the resistance of the individual; whether this is due to constitutional predisposition or to reductions the result of previous injury or disease. The microbes may differ, but a bond of union and close resemblance can be recognized between the effects on the nervous system of all contagious and infectious nervous diseases, as variola, scarlatina, diphtheria, measles, whooping cough, typhoid or typhus fever, leprosy, mumps, cholera, erysipelas, puerperal fever, influenza, or cerebro-spinal meningitis; of all of such constitutional and diathetic affections, as tuberculosis, gout, rheumatism and diabetes; and of all such toxic agents artificially introduced into the system,

as alcohol, mercury, lead, arsenic, copper and poisonous gases. These diseases, these diatheses, and these poisonous metals and gases produce, or may produce, nervous and mental phenomena of the same character, differing in degree in particular cases and for special reasons.

In all these affections at the time of acute outset, if the illness is of a serious character, such symptoms are present as great mental and nervous debility, irritability, restlessness, sleeplessness, or the opposite states of torpor, stupor, hebetude, or coma; delirium, vertigo or syncope; headache, browache, napeache, backache and limb-ache; pains of all degrees of severity referred to various nerve areas; hyperæsthesia of the skin, of muscle-masses, or confined to nerve-trunks or branches; spasms, local or general, and with or without unconsciousness; sometimes mental disturbance amounting to a true mania or melancholia. During the progress of such affections any one or several of these enumerated symptoms may be present. Supra-orbital pain, for example, may be the only prominent nervous symptom in a case of influenza; headache and backache in diphtheria; hyperæsthesia in mumps, diabetes, or gout, and mania in a case of puerperal infection. Any infectious or toxic disease may, in brief, produce the same symptom, syndrome, or train of phenomena; and, which is the main point, for the same reason, namely, because of the introduction into the system of an agent which directly and powerfully poisons nerve-centres, and possibly also nervous conducting tissues.

Following all infectious, diathetic, or toxic diseases, moreover, or directly springing from them, common experience teaches that we my have great nervous or general weakness; forms of insanity of the depressive type; paresis and paralysis of every grade, from an affection of a single muscle to that of all the extremities, and even more; localized spasm or cramp; general convulsions; pains in nerves, muscles and joints, and losses or perversions of sensation.

These symptoms and conditions, which may occur at the onset, during or after the subsidence of any infectious or toxic disease, are those which constitute the nervous features of the prevailing epidemic. I have introduced the subject in this way because it seems to me that it is this comprehensive grouping of generically similar phenomena which enables us to most readily grasp a subject even for practical purposes. We differentiate phenomena in our

daily labor, which we can only understand by properly grouping them and by referring them to a common or to related causes.

Any attempt to classify the nervous and mental phenomena of influenza must be attended with great difficulties. These are, in the first place, symptoms and conditions which, although manifested in non-nervous organs, are directly traceable to a nervous origin; secondly, affections which would be recognized by all as properly referred to the nervous system; and, thirdly, affections occurring in nervous tissues and organs, although, strictly speaking, not nervous diseases.

I will refer very briefly to the first of these classes, although of much importance. I will not, however, discuss the nervous origin of the fever of influenza, nor will I attempt to explain the catarrh, indigestion, etc., on some neurotic theory, as such a method might lead us anywhere, and for our present purposes would be unprofitable. I wish simply to emphasize the fact that some of the most prominent pulmonary, cardiac and vascular affections of influenza can best be explained on neural theories. Many personal observations have led me to the conclusion (not new) which has recently been well presented by Elliott (*The Climatologist*, vol. i, No. 1, August, 1891), of New Orleans, that the pneumonias of influenza are often due to vasomotor paralysis, that they are, in fact, forms forms of blood stasis or passive congestion from vasomotor paralysis, which in its turn is dependent upon the action of the infection upon the pneumogastric centres and the nervous system in general. A distinct difference can be made out between the true pneumonic lung and this "grip-lung," as it has been termed by Elliott. Graves long ago attributed the œdema of the lungs which occurs in influenza to an affection of the vagus.

"The grip-lung," according to Elliott, "has a long and very varying condition of passive blood stasis unaccompanied by râles. If resolution occurs within three or four days, it is accompanied by large mucous râles, and no time is given for the slow appearance of bronchial breathing or bronchophony; but during the long continuance of the blood stasis an exudation occurs, increasing slowly, which will give, in time, some bronchophony and bronchial breathing, but never so complete as in pneumonia. Resolution never occurs in these cases with the suddenness that characterizes it in acute pneumonia. The condition passes off as gradually as it

formed. The sharp, clear-cut and sudden phases of the pneumonic attack separate it clearly from the obscure, irregular and slow phases of the *grip lung*."

Many disorders in various parts of the body are best explained on this theory of local vasomotor paralysis, although it is not necessary to attempt to force this explanation for all. Hemorrhages, minute, or even of considerable size, occurring in diverse localities, as in the retina, membrana tympani and internal auditory apparatus, or in the skin, or mucous or serous membranes anywhere, may be due to deficient vasomotor tonus. Brain, kidneys, liver or pelvic organs may suffer from forms of passive hyperæmia, subacute or chronic, which are in fact due to forms of vasomotor disorders of the extremities, such as flushed or pallid fingers.

Even trophic affections have occasionally been observed. Wilson (American System of Practical Medicine, vol i., p. 870), for example, refers to gangrene of the lungs as one of the less common complications. Abscesses of the limbs have been recorded. Grasset records two observations of eschars occurring in young subjects in the absence of prolonged decubitus. The greater tendency in surgical cases to suppuration may have its best explanation in the depression of healthful vasomotor and trophic influence.

The peculiar forms of pulse and the uncertain or perverted action of the heart, extending in some cases to cardiac palsy and death, are in a strict sense nervous phenomena due to paralysis, partial or complete, of the inhibitory apparatus of the heart.

Let me take up those spmptoms and affections which would clearly be recognized as belonging to the nervous system.

I believe, with Church, "that the infection of influenza has a marked action upon the nervous system which may give rise to immediate acute manifestations or to remote and persistent conditions; and that, in the predisposed, grippe is competent to cause marked excitement or great depression of the motor, sensory and mental nervous apparatus."

Great nervous and mental prostration, both as an acute manifestation and as a persisting sequel, has engaged the attention and required the treatment of all practitioners. The mental depression often present as an initial symptom has been, in some cases, simply overpowering. Some of the patients are affected like individuals whose mental and motor centres have been poisoned to the limits

of human endurance, while still permitting the retention of consciousness. In other cases even consciousness itself has been overwhelmed.

Not a few patients who suffered from attacks of influenza durin the early period of the present epidemic are still victims of profound neurasthenia. I refer now to cases which are not distinctively of the melancholic type. These neurasthenics are unable to endure a fair amount of work; their nervous forces are soon routed; they are weak, worrisome and unrecuperative. The cardiac weakness which has been left is undoubtedly in part the cause of this neurasthesia, and with reference to this Church says that "the persisting neurasthenic condition, which so usually follows influenza, is attributed by some to cardiac weakness of nervous origin, and this contention is not without weight, if it is observed that even after appetite, sleep, body-weight and physical functions have been long restored, the slightest exertion immediately produces disproportionate fatigue accompanied almost invariably by either a retarded or more frequently accelerated pulse, and rarely by præcordial distress, and even by angina pectoris."

Curtin and Watson (*The Climatologist*), whose experience in influenza has been enormous, say that although general nervous prostration often extended over long periods without any discoverable local cause, it was always worth while to examine the urine with care. "Sometimes a nephritis, sometimes a faulty digestion or hepatic inaction seemed to underlie the general condition in latent form. These cases, by enforced rest and attention to local complications, gradually recovered. These cases and nervous cases generally were very disappointing when sent to the seashore during convalescence."

Among the organic nerve diseases which have developed during the influenza or have been left in its wake, are in the order of their frequency, so far as my personal observation has gone, neuritis, meningitis, myelitis and cerebritis, or various combinations of these inflammatory affections, as, for example, concurrent neuritis and myelitis, meningo-myelitis, or meningo-encephalitis.

Probably no single affection of the nervous system has been so common during and after the grippe, and particularly as a sequel of the disorder, as neuritis. Almost every variety of neuritis as regards location and diffusion have been recorded, and have come

under my personal notice. Multiple neuritis, while not common, has not been rare; and I have seen a concurrence of this affection with poliomyelitis in the same case. Isolated neuritis of almost every cranial nerve has been recorded, with such resulting conditions as optic atrophy, loss of smell and of taste, ophthalmoplegias, both internal and external; oculo-motor, facial and bulbar, or pseudo-bulbar palsies of various types, including true pneumogastric paralysis. Several cases of specially located affections of the sympathetic ganglia or nerves have been recorded. Of the forms of local neuritis most common might be mentioned the supra-orbital, intercostal, sciatic and plantar.

An interesting case of neuritis with a myxœdemoid condition of the limbs presented herself at the Philadelphia Polyclinic recently. She had a sharp attack of influenza five weeks ago, having been in good health up to that time, except five years since, when she suffered for several weeks with inflammatory rheumatism. On recovering from the influenza, the attack not having been especially marked with nervous symptoms, she was extremely weak in the legs, and was scarcely able to drag herself around. In a few days her feet and legs began to swell and to be painful, and soon became of enormous size and exquisitely tender. She has gradually improved, but still has a condition of firm swelling, which does not pit on pressure, from her knees to her ankles, and she also still has great tenderness on squeezing the feet or ankles, or in handling the nerves or muscles of the limbs. She has no cardiac affection.

The articular pain and other so-called rheumatic manifestations so numerous during and after attacks of the grippe, are, after all, best explained on the theory of infectious neuritis or myositis.

These cases with articular and other pains, and with swelling, recall the endemic or epidemic form of multiple neuritis known as beri-beri, in which the chief phenomena are œdema and paralysis of the limbs, with marked pain, hyperæsthesia and paræsthesia, followed later by anæsthesia, lost knee-jerk and depressed electrical reactions. Myositis certainly, and probably also periostitis, occur as complications or sequences of the influenza, and usually in association with neuritis of some type.

Many of the reports speak of the frequent occurrence of various neuralgias. Doubtless a distinction is seldom made by observers and recorders between neuralgia and neuritis, which are or may be

separate affections. Practically these cases should be regarded as neuralgic, in which pain is referred to certain nerve lines or radiations; but in which pain on pressure, and the other phenomena of neuritis, such as anæsthesia, vasomotor and trophic disorders and even paralysis, are absent. In my own experience the cases which could properly be diagnosticated as neuritis, are by far the most common. The distinctively neuralgic pains are probably due to toxæmically depressed or exhausted sensory nerve-roots or centres in the cord and bulb.

Of diseases of the spinal cord proper, occurring as complications or consequences of influenza, the reported cases are not numerous, but they are none the less important. A few cases of myelitis have been put on record by native and foreign observers—one that I recall in which all four extremities were paralyzed. As would be expected in accordance with the analogies with other infectious and toxic diseases, anterior poliomyelitis is the most common type. I have had several cases of temporary paralysis of one or more limbs, which, owing to the absence of pain and of cerebral symptoms, were apparently spinal in their origin, and probably light forms of inflammation. Concurrent multiple neuritis and poliomyelitis has already been referred to as having been observed by me in one case in which the neuritis, which was not severe, soon disappeared, but a limited paralysis, evidently spinal in character, was left behind.

Several observers have reported cases of bulbar paralysis, and one striking example of this disease, attributed to the grippe, has come under my own observation, although exactly how far the influenza was responsible it is difficult to say. This patient, a clergyman, had a severe attack of influenza in May, 1890, and during its progress continued to work, and ate but little. In a very short time he noticed he was losing his power in his hands, which soon atrophied. In January, 1891, he began to have difficulties of speech, and, briefly stated, the case went on until November, 1891, when he was first seen by me; his symptoms were those of well-marked bulbar paralysis, with progressive muscular atrophy, chiefly involving the upper extremities.

In accordance with analogy, we would expect the occasional occurrence both of nuclear polioencephalitis, and even rarely Strumpell's cortical polioencephalitis. One or two of the few cases of probable polioencephalitis of the latter type have occurred in

patients suddenly stricken with fever, loss of appetite, and other symptoms which may have been due to infection.

Priester (*Wien. med. Woch.*, No. 27, 1159; in *American Review of Insanity and Nervous Diseases*, December, 1891) has reported the case of a man 54 years old, who was taken with influenza in February, and in the beginning of March was seized with extremely violent headache, which resisted all medication, and later the patient became deeply somnolent, remaining in this condition for four weeks; he could be aroused, but was apathetic and soon slept again. Reflexes and temperature were normal; pulse from 40 to 60. The patient had no paralytic symptoms, and slowly improved. His affection, according to the reports of the case, closely resembled Gerber's disease—paralyzing vertigo—although the latter is a disease of the warm weather. Tumor could be excluded by the absence of all focal symptoms a year before the attack. The most probable cause, he believed, was a pathological process, involving the central gray matter of the third ventricle, which would bring the disease into close relation with polioencephalitis of the nuclear type. Dr. G. J. Kaumheimer, who translated this report for the *Review of Insanity and Nervous Disease*, December, 1891, observed an exactly parallel case which originated in April, and lasted into July before recovery took place.

That meningitis, either cerebral, spinal or cerebro-spinal, occurs during the decline of the influenza cannot be doubted in the light of the evidence which has been presented by various observers, and particularly during the epidemic of the last three years. It is, however, a comparatively rare concomitant or complication. Some of the facts adduced as proofs of the existence of meningitis, and some of the cases reported as examples of the disease, are clearly instances of improper interpretation. The intense cephalalgia and rhachialgia; the atrocious pains variously localized in the face, trunk, limb-nerves, muscles or joints; the vigilant delirium, with hallucinations and delusions, sometimes assuming great gravity; the intense vertigo, with or without nausea and vomiting—these and other well-known nervous manifestations which are so prominent in many cases at the initiation of the disease, are not necessarily evidences of meningitis, or even of meningeal hyperæmia. Rather they are due to an overwhelming toxæmia of the nerve centres and of the brain. Severe and terrible in character at first.

they frequently pass away almost as rapidly as they came, which would not be the case if they were the evidences of a true meningitis. The enormous prostration which is left behind shows that the centres of nervous energy have been subjected to a depressing agency of great virulence, not that merely enveloping membranes composed mainly of fibrous tissue and blood-vessels have been congested or inflamed. No reason could be given why such congestion or inflammation should leave such results.

The reports of cases terminating fatally because of meningitis, and even the reports, personal or official, of the frequent occurrence of this action, must be received cautiously, and sometimes incredulously. They are only to be relied on when confirmed by autopsies, or when from observers who are accustomed to closely differentiate the meaning of nervous symptoms, and particularly of pain.

It may also be worth while at this point to refer to the somewhat frequent diagnosis of chronic meningitis as one of the sequelæ of the disease. This diagnosis is usually made because of the presence of more or less persistent pain in or on the head. Experience has led me to believe that this pain is usually neuritic rather than meningeal. Even deep seated intra cranial pain does not necessarily indicate meningitis. They may be due to neuritis, just as certainly as a pain in the hand or foot. The fifth nerve has an immense distribution within as well as outside the cranium, largely to the dura mater, but also to other tissues and parts. It is a pathological possibility to have dural neuritis without a pachymeningitis, and this is the true explanation of some pains, both acute and chronic, which are present in other diseases as well as in influenza.

The form of meningitis most likely to be present in influenza is inflammation of the pia-arachnoid or soft membranes, now often designated lepto-meningitis. From observations corroborated by autopsies, I know that this affection may exist without pain; while pain of varying degree of severity, and usually intense, is practically invariable in pachymeningitis. Lepto-meningitis, however, is not usually without pain and hyperæsthesia as symptoms, but it may be absent, and its presence or absence will depend upon the location, extent, grade and complications of the meningitis.

While believing that these criticisms upon the sometimes hasty and the too frequent diagnosis of meningitis in influenza, and, indeed, in many other infectious and febrile diseases, are just, and

can be sustained, it remains true that a genuine meningitis, sometimes of malignant type, may appear during the progress or closely following influenza. Some very competent observers have reported cases of this character, and in a very few instances the diagnosis has been confirmed by autopsies. The diagnosis should be made to hinge upon the signs and symptoms which would be satisfying as to the occurrence of meningitis from any cause; not alone on the presence of such phenomena as headache, vertigo and vomiting, but on such more convincing manifestations as optic neuritis and localized spasms or palsies, either cortical or of cranial nerves.

The fact that meningitis, and even the cerebro-spinal form, does occasionally occur in influenza, is by no means proof that this disease and epidemic cerebro-spinal fever are identical. It simply emphasizes the point with which I started, namely, that every infectious or poisonous agent introduced into the economy may produce the same or similar pathological results in the nervous system. Largely according to the vulnerability, special or general, of certain tissues and organs, will be the preponderance of this or that form of so-called disease—for instance, of neuritis, myelitis, meningitis, cerebritis, or of combinations of these affections. All infectious and toxic diseases give neuritis as the most common acute or chronic inflammatory manifestation, although myelitis, cerebritis and meningitis may occur. Even in cerebro-spinal fever, as I was perhaps the first to find out, multiple neuritis is a common complication; but the infection being virulent and overwhelming, we may not only have meningits, but even meningo-encephalitis or meningo-myelitis, with all their malignant phenomena and permanently disastrous results.

Vertigo is another symptom, like pain, often improperly referred to meningeal or cerebral inflammation. It is sometimes due to such disease, but occurring in influenza it may arise from other causes, as, for instance, from extravasations into the labyrinth or other portions of the auditory apparatus.

Müller (*Berlin klin. Woch.*, No. 37, 1890; cited in *American Journal of Insanity and Nervous Diseases*, December, 1891) reports the case of a man 50 years old who, after influenza, presented great physical exhaustion. In a few weeks his mind seemed affected and he became somnolent, so that he could be roused only with difficulty and would then fall asleep again. In this respect the

case was much like the one reported by Priester. Pain upon pressure was present over the vertebræ, the neck was rigid, the pulse was small and irregular, the skin reflexes were diminished, and the tendon reflexes were absent. In two weeks he began to improve. The author believed the case was one of spinal cerebro-spinal meningitis, similar to that seen after infectious diseases.

Without entering into a discussion of their pathology or their peculiarities, I will briefly mention a few other forms of nervous disorders, occurring during or as apparent sequelæ of the influenza, examples of which have come under my personal observation. Convulsions have been reported by various observers, and in a few instances the convulsive habit has been established, and the patients have remained up to the time of report as cases of epilepsy. I have seen two such cases. Hystero-epilepsy and other grave hysterical phenomena have been initiated, or have recurred in cases in which the symptoms had long been dormant. Of local spasmodic affections I have seen no records, but one case of persistent clonic torticollis, with some pain and tenderness in the spinal accessory distribution, has been in attendance at the Philadelphia clinic. Two cases of facial paralysis, occurring immediately upon the heels of influenza, have come under observation.

Many affections not of, but occurring in, the nervous system, have been reported as complications or sequences of the influenza. These include such affections as apoplexy, due either to hemorrhage, thrombosis or embolism. One of my polyclinic patients, a man 37 years old, was attacked with influenza in January, 1890. He was not confined to bed, but suffered severely from headache, cough and persistent general weakness, and in February he was suddenly paralyzed in the right half of his body, and completely aphasic. Well-marked cardiac murmurs were present, and the grippe in this and similar cases is probably causative by lighting up old endocardial trouble, or through the blood dyscrasia and general prostration which it leaves.

Various observers have reported cases of monoplegia and hemiplegia, without indicating the pathological character.

Recently, in consultation, I saw a typical hemorrhagic apoplexy occurring in a case of influenza in a woman about 60 years old, who had previously been in fair health, and was not known to have had any disease of the kidneys or heart, although her vessels were some-

what atheromatous. Dr. S. S. Prentiss (*Medical News*, August 29, 1891), of Washington, has reported three cases of cerebral apoplexy occurring during the progress of the influenza—one was a man of 57 years of age; another in a man of 87; a third in a woman of 67. One of these was probably hemorrhagic, the other two from the histories were probably from thrombosis. In cases of this character the infection of the disease acts to bring out an apoplexy both by the changes which it produces in the blood, by its effects upon cardiac action and by the general debility induced. Such apoplexies might occur from other depressing causes; they are to be regarded, not as phenomena, but rather as accidents of the epidemic.

Uræmic convulsions in patients suffering from chronic Bright's disease have been precipitated by the influenza, and it has seemep to me to have been active in lighting up lurking syphilitic diseases.

In one case of paretic dementia of somewhat irregular type, seen in consultation, the initial symptoms of the disorder were observed soon after recovery from a severe attack of grippe, the wife and friends of the patient, in fact, attributing the mental disorder to this attack. The probabilities are that syphilis was present, but latent, prior to the epidemic.

Purulent meningitis and brain abscesses have been somewhat frequently noted in connection with the numerous instances of purulent otitis media.

The relations of influenza to insanity have not received much attention from writers. Mairet (Grippe et Alientation Mentale; Montpellier and Paris, 1890), of Montpellier, has recently published a lecture on the subject delivered at his clinic for mental and nervous diseases. Rush, who is referred to by Mairet, speaking of the epidemic which lasted from 1789 to 1791, and particularly of the year 1790, mentions that several persons were stricken with symptoms of insanity, and that one attempted suicide; he also speaks of several having had hallucinations of sight. Bonnet, reporting on the epidemic of 1837, cites one case which was stricken with a furious mania as the result of the grippe; and Petrequin, referring also to the same epidemic, records several patients tormented by melancholy ideas, and states that four or five suicides were accomplished or attempted at the hospitals in Paris.

The following conclusions compress into small compass so much

that is valuable, with reference to the relation between influenza and the psychoses, that I cannot do better than quote them. They are reported as the conclusions arrived at by Dr. Leledy, and were presented to the Medical Society of London by Dr. Savage (*Lancet*, No. 3,558, and *Medical News*, January 16, 1891): (1) Influenza, like other febrile affections, may establish a psychopathy. (2) Insanity may develop at various periods of the attack. (3) Influenza may induce any form of insanity. (4) No specific symptoms are manifested. (5) The rôle of influenza in the causation of insanity is a variable one. (6) Influenza may be a predisposing or exciting cause. (7) In all cases there is some acquired or inherited predisposition. (8) The insanity is the result of altered brain nutrition, possibly toxic. (9) The onset of the insanity is often sudden, and bears no relation to the severity of the attack of influenza. (10) The curability depends on general rather than on special conditions. (11) The insane are less disposed to influenza than are the sane. (12) In rare instances influenza has cured psychoses. (13) The insane may have mental remission during the influenza. (14) There is no special indication in treatment. (15) Influenza may lead to crimes and to medico-legal issues.

I can indorse from experience almost every one of these conclusions. With reference to the statement that no specific symptoms are manifested, it should be said that while this, in a general sense, is true, the most frequent type is a form of melancholia.

The cases of active insanity have been observed at the onset of influenza and during its height, but more particularly during its period of decline and convalescence. The published cases have been recorded chiefly as instances of acute mania or melancholia. The commonest type of grippe mental disorder, as I have just stated, is a form of melancholia or lypemania; but as this not infrequently assumes the form of melancholia agitata, it is often regarded as mania by practitioners not accustomed to differentiate the varieties of insanity. These patients are intensely depressed and emotional; they are filled with apprehensions of disgrace and ruin; they believe that they will never recover their former health; they are suspicious and delusional with reference to those who surround them; they are frequently unwilling to eat, or to rest, or to take medicine; and in some cases they have definite delusions of terrible character, for the most part hypochondriacal or religious.

They are frequently plagued with the thought of suicide, and sometimes make successful or unsuccessful suicidal attempts. They have been deprived by the ravages of the disease of mental and moral stamina. In the majority of these cases, but not in all, some hereditary or acquired predisposition is present. While, however, the grippe usually gives us mental disorder of special type—a form of delusional melancholia—under special conditions it may be the starting point or exciting cause of any variety of mental disorder, as mania, paranoia, paretic dementia, hebephrenia, etc., but I can no more than glance at this phase of the subject.

The investigations of Church show that in each year in Cook county, Illinois, the epidemic of influenza has been attended by an increase in the number of proceedings for the commitment of the insane, which he believes cannot be explained by increase or movement of the population of the county.

Of the influenza occurring in hospitals for the insane I have had no opportunity for observation except in connection with the insane department of the Philadelphia Hospital. A great disproportion has been observed between the number of cases occurring among the women and the men. One hundred cases are recorded as having occurred among 460 female patients, and only three in a larger number of men. The disease did not prove particularly disastrous among these patients, only three deaths having occurred from pulmonary complications. The cases were, as a rule, not of severe type, less severe than in an equal number of sane patients.

K. Helweg (Hosp. Tidende, R. 3, Bd. viii, S., 729) has recorded the results and action of influenza in the Asylum at Aarhus, Denmark, and Pritchard has translated and summarized this paper for the *Review of Insanity and Nervous Diseases* for December, 1891. The account is of such interest that I will give it in detail: "The disease appeared in the Asylum January 4th, a few weeks after it had first been observed in the neighborhood. Out of 520 insane 41 were so severely attacked that they were confined to their beds. The disease seemed decidedly contagious. It spread with difficulty on account of the wards being divided one from another. Eight of the 25 wards were spared altogether. When a ward would be invaded the disease would rapidly run its course to proceed to another. The transmission of the contagion could be distinctly seen in the sick wards where those stricken down in the other wards

would bring the disease with them and transmit it to patients there. Seven patients had pneumonia. A relatively large percentage (6) died, of which 4 were from pneumonia. Among these was a man with such a severe cerebral disease that he must be excluded (the post-mortem results in the remaining 5, which were women, were all more or less similar). The most essential results were extreme hyperæmia of the cranial bones and membranes, where the dura and the brain mass itself twice presented fresh and strongly vascular pseudo-membranes with small hemorrhages as well. The veins and arteries of the thinner cerebral membranes were filled to bursting with blood; the large basal arteries were so filled with coagula that they stood out like cords, or those of an injected specimen. The brain substance itself was very hyperæmic, and its consistence increased. The average weight of these brains was about the ordinary of those of Aarhus. The writer also gives the history of the man mentioned, and those of the three other cases where influenza could not be diagnosticated during life, including the post-mortem findings of a case of influenza in a (sane) nurse who died of pneumonia. Here also was great hyperæmia of the brain and its membranes, yet not so pronounced as in the insane cases. The writer has seen influenza accompanied by severe psychic symptoms. In a few cases the condition resembled acute delirium, which, however, is transient, and seems easily controlled by antifebrin. On the contrary, in two hopeless cases of insanity the disease had such a favorable and curative action that they may be regarded as cured. In both cases there was pneumonia."

The epidemic influenza has impaired the *morale* of the community. Lack of spirit in work and an apprehensiveness with reference to health, business and all matters of personal interest are abnormally prevalent. The hysterical have become more hysteric; the neurasthenical more neurasthenic. Hypochondria has displaced hopefulness in individuals commonly possessed of courage and fortitude. In brief, certain neuropathic and psychopathic features have been impressed upon the community. We cannot afford even to dismiss entirely from consideration the bearings of the epidemic upon the increase not only of suicides, but of other grave crimes.

The use in influenza of hypnotics, narcotics, sedatives and motor depressants is a question of particular interest in connection with the study of the nervous and mental phenomena of the disorder.

Serious mental and nervous complications or actual insanities occurring during influenza have been attributed to the too free use of such chemically powerful remedies as phenacetin, antipyrine, antifebrin, chloral, bromides, sulfonal and paraldehyde; and our older narcotics, such as opium, hyoscyamus, conium and cannabis Indica, have also come in for a share of blame. Persisting conditions of nervous prostration and chronic respiratory and cardiac neuroses, have also been charged to drugs. Undoubtedly such criticisms have some foundation, but it remains true that each of the remedies named has proved itself of some value in the treatment of influenza, and particularly of its nervous types. The enormous consumption of a drug like antipyrine is a practical argument both for and against its use. What Grasset has said of this remedy might with almost equal truth be said of almost any of the rest. "This agent," he says, "vaunted by some as a panacea against all manifestations of the disease, is considered by others a remedy absurd and irrational in all cases. The truth would seem to reside between these two extreme opinions."

A CASE OF HEPATIC ABSCESS RELIEVED BY ASPIRATIONS AND TAPPING.

By R. L. Gibbon, M.D., Charlotte, N. C.

Acute Suppurative Hepatitis, at all times a dangerous malady, and one calling for the highest development of medical and surgical art, is yet not of such rare occurrence as to render the publication of an ordinary case of any special interest, unless it be coupled with some original ideas of treatment, diagnosis or pathology.

The case given below is somewhat out of the usual order, and occurred in a comparatively young subject. It may therefore be of interest, although there is no claim for originality of procedure.

On May 10th, 1891, I was called to see Mary B———, aged 13 years, an employé of a cotton mill. She complained of a "lump" in her right side, with pain and tenderness.

There was a history of measles occurring two or three weeks before her present trouble, which latter she had first observed about

ten days before I saw her. There was no traumatic cause for the swelling, nor could I elicit any history of a dysenteric nature. She had, during the last few days, grown progressively worse, and at the time I saw her the pain was of such a severe character as to render sleep or the erect posture almost impossible. The patient presented the usual appearance of the "mill hand"; was somewhat anæmic, but fairly well nourished. The tongue was not markedly coated, and the bowels rather loose; temperature, taken in the mouth, was found to be 103° F.

On examination of the affected part, a quite perceptible bulging was seen in the right hypochondrium, midway between the lower margin of the ribs and the crest of the ileum in the axillary line. The tumor was dull on percussion; no fluctuation, and was exquisitely painful to pressure. The dullness was found to be continuous with the liver—dullness which seemed itself to be increased in all directions. Abscess of the liver was suspected from the first, and a conservative line of treatment was adopted, consisting of hot fomentations to the side, regulation of diet, confinement to bed, and as drugs, quinine, with opium sufficient to procure rest at night. During the next few days the swelling grew larger and more distinct, and the constitutional symptoms more marked.

The patient usually lay on the left side, and when assuming the dorsal position always flexed the body to the right—*latero-dorsal decubitus*. The temperature ranged from 102° in the morning to 103° in the afternoon, observing the usual remittent type.

On May 19th, in company with Dr. Meisenheimer, I saw the case again. The patient's condition was decidedly bad. Her appetite was entirely gone and she took only stimulants in small amount. An unhealthy diarrhœa come on, and the severe and continuous pain was only partially relieved by opiates. The face was drawn and pinched, the skin sallow and the whole appearance was ominous of a fatal termination unless speedy relief was obtained. The dullness now extended to within an inch of the iliac crest, but the tumor was still hard on palpation. At this visit an exploring needle was introduced, but did not find pus. Thirty-six hours later the needle of a hypodermic syringe was introduced into the most prominent part of the swelling, and about half a drachm of pure pus withdrawn. An aspirating needle was now inserted, and three ounces of matter removed. The relief was great for twelve hours,

after which time it became necessary to operate again. The symptoms persisting, a small trocar was introduced, and altogether about three-fourths of a pint of pus was withdrawn. As the patient for some days continued feverish and suffered some pain, we returned May 23d prepared to make a free incision and introduce a drainage-tube, when we were agreeably surprised to find such a proceeding unnecessary. The temperature was normal, the tongue cleaning, and the appetite had returned. The site of the abscess was still painful to pressure, and it was some time before the increased liver dullness passed entirely away. Recovery was a little delayed by an attack of intercostal neuralgia, affecting the right side, but the patient now presents every evidence of permanent recovery.

Throughout the case there was no manifestation of pus formation, such as chills or sweats; jaundice was entirely absent. The pus contained some shreds and débris, resembling hepatic tissue, but no bile. I regret to say that no microscopic examination was made for liver cells.

The prognosis of hepatic abscess is always grave, the mortality being variously estimated from 70 to 90 per cent. Frerich says: "Abscess of the liver terminates in death far more frequently than in recovery." When allowed to seek its own outlet, the prognosis varies with the locality selected. Discharge by the lungs is the most favorable route, while that into the intestine is the least so. Rupture into the peritoneal cavity sometimes happens, and is usually fatal.

In regard to diagnostic points, modern authorities are mostly agreed upon the harmlessness and utility of exploratory punctures, when properly done, in all cases of a doubtful nature. By enabling us to establish the fact of an abscess early in the case, we are relieved from uncertainty and the patient often saved days and weeks of suffering, while the prospect of recovery is materially increased.

The treatment of abscess of the liver is based upon the surgical maxim which demands the evacuation of pus wherever found. As to the method to be used in accomplishing this result, there is some diversity of opinion. In a case read before the Philadelphia Medical Society, by Dr. G. W. Vogler, the patient, a little girl 12 years of age, was treated by free incision and the introduction of a

drainage-tube. The result was most favorable. Speaking of the treatment by aspiration, Dr. Vogler says: "Imperfect removal of pus by one or more aspirations or punctures, permitting more or less to remain behind, will, in addition to that constantly forming, undoubtedly keep up constitutional symptoms, and finally produce a fatal issue by rupture or blood-poisoning, if the very rare act of absorption does not take place." On the other hand, many prefer the aspirator to either the trocar or drainage-tube. Bartholow, in Pepper's "System of Medicine," quotes his own and the experience of others to prove the advantages of the former method, while admitting the utility of free incision when the abscess is very large, or the parietes of the abdomen are involved. As is often the case, the truth probably lies in a combination of both methods It would doubtless be expedient and proper to aspirate first, and, in case of failure to relieve, to resort to free incision and drainage. This plan would seem all the more advantageous as one or more punctures of the needle would facilitate the adhesion of the abscess to the abdominal wall, thereby doing away with one of the principal objections to incision, that of allowing the escape of purulent matter into the peritoneal cavity.

ŒSOPHAGEAL OBSTRUCTION—TREATMENT BY ARTIFICIAL DIGESTION.

By R. H. Whitehead, M.D., Chapel Hill, N. C.

The following account of the treatment of a case which recently occurred in my practice may not be without practical and scientific interest. In addition, I have a personal motive in publishing the case, as there have appeared in the newspapers some reports of it in a rather sensational tone and admitting of a construction unjust to myself.

On February 2d last P. L., a negro girl 9 years old was brought to my office by her mother, who gave the following history:

Six days previously, while eating beef-steak at her home in Durham, the child was suddenly seized with pain in the throat and inability to swallow. On the next day her mother carried her to

her physician, but as he was soon afterwards called away from Durham by telegram, the girl was transferred to the care of a colored practitioner, whose name has escaped my memory. The girl's symptoms becoming no better, her mother brought her to me, under the impression that the offending substance was in the stomach, and with the intention of asking me to remove it by operation. The child was greatly emaciated, and her desire for water and food amounted almost to mania, but yet unable to swallow anything without its being instantly regurgitated. Rectal injections of milk had been employed, but their use abandoned on account of irritability of the rectum.

As there was some difficulty of breathing, examination was made first with the finger and then with the laryngoscope, but nothing could be detected. Then a probang was introduced with much difficulty owing to the struggling of the child and the sensitiveness of her throat. An obstruction was encountered at a point judged to be behind the left bronchus; but after using as much force as was deemed justifiable, it could not be pushed on to the stomach. It then occurred to me that the beef might be digested *in situ* by the use of pepsin and hydrochloric acid, provided a sufficient quantity could be kept in contact with it. Having first ascertained that about 20 drops of fluid was the largest quantity the girl could swallow without regurgitation, she was directed to take 15 drops of pepsin cordial and 5 drops of dilute hydrochloric acid every ten minutes. I watched her very carefully, and the directions were faithfully followed. After three or four doses were taken the quantity accumulated would be regurgitated. After five hours of this she threw up a piece of cartilage about the size of the last phalanx of the little finger, but was still unable to swallow. After two more hours, however, she could swallow with ease and speedily recovered. It is possible, of course, that the mass was carried down into the stomach spontaneously by the contractions of the œsophagus, or that the beef was distintegrated by decomposition. However, neither of these suppositions seem probable, as there was no fœtid odor about the cartilage, and the shreds of tissue clinging to it showed the action of a solvent. The pepsin used was the preparation "Pepsin Cordial" made by Parke, Davis & Co., a very reliable firm, a fluidrachm of it being warranted to dissolve 1,000 grains of albumen. We have many testimonials to the efficacy of

pepsin in dissolving blood-clots, sloughs, etc. (See various papers by R. T. Morris, of New York.)

Should a similar case ever occur in my practice again, I should feel inclined to first attempt to anæsthetize the œsophagus with cocaine, in the hope that thus a larger quantity of the solution might be retained for a longer time.

The writer can remember no case recorded in our literature in which similar treatment was employed, but doubtless it has suggested itself to others. Dr. T. J. Wilson, of this place, tells me that he had recourse to the same treatment, with success, a year ago, in the case of an old glutton choked by a piece of beef heart. The physician first in attendance had pushed it down the œsophagus, hoping to get it to the stomach, but it became impacted so firmly as to forbid any further attempts in that direction. I am also reliably informed that Dr. K. P. Battle, of Raleigh, has employed pepsin to dissolve a slough—formed by caustic potash—which had gone down into the œsophagus.

On the whole, it seems to me that this treatment well deserves a trial in cases of digestible substances impacted in the œsophagus, before resorting to œsophagotomy.

MR. W. SAUNDERS, of Philadelphia, announces important new medical works now in preparation, ready for delivery about June 1, 1892, for sale by subscription only: 1. The American Text-Book of Surgery, by Profs. Keen, White, Burnette, Conner, Dennis, Park, Nancrede, Pilcher, Senn, Shepherd, Stimson, Thomson and Warren; forming one handsome royal octavo volume of about 1,200 pages (10x7 inches); profusely illustrated with wood-cuts in text, and chromo-lithographic plates; many of them engraved from original photographs and drawings, furnished by the authors. Price, cloth, $7.00; sheep, $8.00 2. An American Text-Book of the Theory and Practice of Medicine, According to American Teachers. Edited by William Pepper, M.D., LL.D., Provost of the University of Pennsylvania. To be completed in two handsome royal octavo volumes of about 1,000 pages, with illustrations to elucidate the text wherever necessary. Price per volume, cloth, $5.00; sheep, $6.00; half Russia, $7.00. Agents wanted.

CURRENT LITERATURE.

SOME EXPERIENCE IN THE TREATMENT OF CHRONIC RING-WORM IN AN INSTITUTION—HE GIVES THE PREFERENCE TO CHRYSAROBIN.

Prof. Louis A. Duhring, M.D., in the February number of the *American Journal of the Medical Sciences* records a most instructive lesson of a struggle with a ring-worm in an institution where it had taken foot-hold, and he was employed to free it if possible. The disease had been prevalent for some years, and lately it had been spreading in spite of care and attention on the part of physician and nurses. In the 48 cases affected the disease had existed from six months to three years, the average being a year.

The author confines himself to the therapeutics of the disease, with a view to giving the result of a year's work with the several local remedies prescribed.

The hair, as a rule, was clipped short about once a week, but in some cases the scalp was regularly shaved every few days. Epilation was, for reasons explained, not practiced. Early in the treatment it became manifest that many of the cases represented the most rebellious types of the affection, and that perseverance, powerful parasiticides and time would be required to cure the disease, which was literally firmly rooted. Subjects of dark complexions tolerated much stronger formulæ than those with light hair. From time to time treatment had to be suspended to allow inflammation due to the remedies to subside. From time to time it became necessary to use cleansing agents to clear the surface of scales, crust and débris, the result either of the disease itself or of the remedies applied. For this purpose a mixture of soft-soap and sulphur was generally used. The parasiticides used were in the following order:

Carbolic acid: This was used extensively in the form of an ointment and as a mixture with olive oil and with glycerin, in strength varying from half-drachm to two drachms to the ounce. One of the formulæ was carbolic acid, ʒ j–ʒ ij; ointment nitrate mercury, ʒ ij–ʒ jv; sulphur ointment, ʒ iij–ʒ v. In a few cases

tar ointment was substituted for the mercurial. His experience in these cases inclines Dr. Duhring to give carbolic acid a comparatively low rank.

Tar was prescribed mainly with carbolic acid, or with sulphur, or ointment of nitrate of mercury, but nothing favorable can be said of it.

Iodine was prescribed in the officinal tincture and double strength, and as Coster's paste, consisting of iodine, ʒ ij and oil of tar, ℥ j. Because it was a discutient in these combinations, and the epidermis is raised and thrown off by it, leaving no remedy in contact with the scalp, he saw reason to employ it in the combination as an ointment. In this connection he lastly refers to a preparation of iodine, ʒ ss; carbolic acid, ʒ j; and glycerin, ʒ j, but it was not found efficacious.

Oleate of copper possessed no curative influence.

Mercurials were prescribed chiefly in combination with sulphur and carbolic acid. Some of the preparations were employed alone, such as the ointment of the nitrate and oleate of mercury. The latter was given a faithful trial in from 10 to 30 p. c. strength, the results not meeting expectations. Calomel was found of value in subduing inflammatory action from whatever causes due. Corrosive sublimate was not deemed a safe remedy to such large surfaces.

Croton oil, in sluggish cases, proved especially useful in provoking acute, purulent, inflammatory action. After this had been well established, the milder parasiticides, as the sulphur ointments and lotions, were advantageously prescribed.

Cantharidal blistering fluid was used, but possessed no special virtues.

Sulphur was used mainly in the form of an ointment from one to three drachms to the ounce. It did best as a weak ointment after the stronger remedies, and more particularly in clearing up scurfiness. It proved an efficient mild parasiticide.

Chrysarobin was prescribed in 29 cases. Some of the patients tolerated a much stronger ointment than others; thus in one case nine applications of a two-drachm to the ounce ointment were made, without causing swelling or inflammation of either scalp or face. There were groups of cases in which he used strong ointments without causing severe inflammations, if due care was taken to avoid the face in using it. It is a remedy always to be handled

with caution. It proved the most valuable parasiticide in the list. In the form of ointment it possessed power to penetrate the follicles and to destroy the life of the fungus, and in this latter power lies its great worth. In no instance was chrysarobin combined with other remedies.

He concludes by saying it should be applied in the smallest quantity possible, and well rubbed in with a bit of cloth or a mop. Used with caution, staining of the skin of both nurse and patient may be reduced to a minimum.

In the class of ring-worm under consideration Dr. Duhring remarks it is always slow, but he has no hesitation in giving the preference to chrysarobin. He pronounces it the most potent remedy at our command, and is not only valuable, but comparatively safe, and that, with due caution, it may be applied to the scalp, under the supervision of the physician.

A BUSINESS OR A PROFESSION—WHICH?

In the long run his acquaintances measure the doctor by his own standard. That something called "character" forms the basis of this standard. In speaking of a prominent physician lately in the writer's hearing, the remark was made: "He is a pure business man, and so takes no interest in professional matters that do not lead directly to an increase of his bank account." It was not meant that he was a professional man who conducted his affairs in a business-like manner, but that his character was that of a business man. He was a business man with business methods.

In his story entitled "Characteristics" Dr. S. Weir Mitchell says:

"A friend of mine, a physician, did a rich manufacturer a great service in the way of his profession. When the obliged man asked for his account, he requested a reduction for prompt payment, and, on this being declined, grumbled over the amount. The doctor was immovable. 'You are at liberty,' he said, 'to pay nothing or all.' 'But this is business,' answered the other; 'why not discuss it like any other business?' 'I am not a business man,' said my friend; 'I belong to a profession. I sell that which no man can

weigh or measure.' Finally the bill was paid, and then the manufacturer, suddenly changing his tone, said: 'Well, now that this business is completed, I should like you to accept this as a slight token of our gratitude.' It was a check for thrice the amount of the debt. The doctor said: 'No; I never allow a man to overpay me.' The next day the check was sent to a hospital in which the physician was interested."

The latest notoriety of a pure business man donning the robes of a profession is the proprietor of the Keeley inebriate cure. Evidently he exhibits none of the characteristics of a professional character. Certainly this feature, for the present, seems to commend him to the good-will of business men and shrewd individuals outside of medicine. These intelligent persons forget to ask themselves the inevitable results which would follow the adoption of this method by all members of the profession.

We think it greatly to their credit that so generally those who have entered the medical profession have laid aside a business character and put on a professional one, one that has been the gradual evolution of countless ages. Thus has progress in the healing art been possible, and thus has humanity reaped the advantages of a class of men devoted unreservedly to the study of the prevention and cure of the ills afflicting the human body. It is quite compatible with such a professional character for the doctor to conduct his affairs according to those business methods that experience has shown to be most advantageous to all parties interested.

QUININE COST $20 per ounce in 1823, then given in very minute doses and at a cost not large by reason of this dosage; in 1853, $3.00, then a prime necessity; in 1861, about $1.50; during the war on the Confederate side, because it was made contraband of war, from $5.00 rapidly up to $100 an ounce; just after the war, in the subjugated States, at $5.00; while now it costs from 18½ to 24 cts. This very low price is due to the rectified tariff in a great measure, but in a very appreciable way to the immense consumption of the new antipyretics.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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THOMAS F. WOOD, M. D., Wilmington, N. C.,
GEO. GILLETT THOMAS, M. D., " } Editors.

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WILMINGTON HOSPITAL FOR 1891—AN INDISPENSABLE PUBLIC CHARITY HONESTLY CONDUCTED.

From the humblest beginnings the Wilmington Hospital has achieved a mission for good that is worthy of record occasionally in the JOURNAL. In speaking of this Hospital we keep out of mind the palatial structures of the large cities, for most of them are the productions of great wealth having its expression in the truest models attainable in architecture and in sanitary appliances, monumental designs, the exponents of overflowing philanthropy of the few rich, while ours is the struggle of as true a philanthropy, only limited by a slender purse. In a community with a considerable

majority of negroes, the burden of charity falls heavily upon the white tax-paying portion, and nothing but the closest economy makes it possible to have a hospital at all. In spite of all these disadvantages the outcome of the work compares favorably with institutions having unstinted facilities.

Dr. W. W. Lane, the faithful medical officer resident and in charge, reports that there has been only one death following the 20 surgical operations during the year. Among these operations are some of the most formidable character: three laparotomies, including one for ectopic pregnancy; a double leg amputation for railroad injury; amputation of one thigh with intra-capsular fracture of other femur; supra-pubic operation for stone; and operation for radical cure of hernia. This last was the fatal case.

Only one case of pneumonia and one of typhoid fever is reported in a hospital population of 172. The admissions from syphilis and malarial fever were the greatest of all causes of disease mentioned, and of surgical injuries there were 41 fractures.

Dr. Lane calls the attention of the Board of Managers to the necessity of some other mode of heating than by stoves, which seems to us to be an all-important demand. The danger of fire, with an almost certain loss of life in a building of such combustible material, with no fire escapes, is great, although most of the patients are on the first floor, with verandas on both sides of the wards and ample windows reaching to the floor, opening on to the verandas. Safety, economy and comfort will be accomplished by heating with steam. While all the improvements have been slow, they are manifestly in the right direction. The difficulty in separating colors and sexes has been accomplished, but much of the interior arrangement is rudimentary, and we are sure that the good sense of the Managers will correct and improve them as they have the ability.

The greatest need of such an establishment is proper nursing and this cannot be accomplished by utilizing convalescents, or in any other way than by having properly instructed and disciplined nurses No hospital can attain a first-class position without the best nursing facilities, and the Managers cannot longer delay this without losing caste. The expense is unavoidable, and should be provided for as that of a prime necessity.

Moreover, we go farther, and say that from a well regulated

hospital should emanate the best principles of nursing, and no hospital fills the full measure of its usefulness until it is the centre of the training of a supply of nurses for the whole section in which it is located. When it gets to be the fashion to leave bequests for charitable institutions, none will deserve more serious consideration of the willing rich, than to found a training school for nurses. There are gentle women a plenty who need occupation, who are suited to nursing by strength, healthfulness, grace and education, but who know not how to begin or where to go.

THE NEXT SESSION OF THE BOARD OF MEDICAL EXAMINERS OF NORTH CAROLINA.

The next annual session of the Board of Medical Examiners will be held in Wilmington, beginning on Monday, the 22d day of May, and remaining in session until all candidates are examined.

The examinations are written and oral, and at this session, as we understand, a number of applicants, chosen by lot, will be required to make clinical diagnoses of cases presented to them.

We have received numerous letters on the subject, the drift of each enquirer being as to the requirements of the last session of the Board. Letters on this subject should be addressed to the Secretary, Dr. L. J. Picöt, Littleton, N. C.

BE SURE YOUR PEROXIDE OF HYDROGEN IS PURE.—Our learned chemist friends of the *American Druggist*, quoting from the *Journal Chem. Soc'y*, says that when a drop of 10 per cent. solution of metaphenylene-diamine chloride is boiled with a few drops of water and a drop of hydrogen peroxide solution, a carmine red coloration is produced. Try it !

FOR THE DRY, ringing cough of influenza the following is a good combination :

℞.—Syrupi picis..... ℥ jss.
Spts. ammoniæ aro..... ℥ ss.
Syrupi pruni virg..... ℥ jss.
Potassii iodidi..... ʒ ss.

M. S. Teaspoonful 2 to 4 hours apart.

THE THIRTY-NINTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF NORTH CAROLINA WILL BE HELD IN WILMINGTON ON TUESDAY, 24th MAY.—AID THE SECRETARY AND LOCAL COMMITTEE OF ARRANGEMENTS WITH THE PROGRAMME.

Preliminary preparations are being made for the next annual meeting of the State Medical Society. Appropriate committees have been appointed, and, as far as the local Society can go in this matter, they will make the meeting pleasant. The beautiful building of the Young Men's Christian Association has been secured, thereby ensuring the most complete and pleasant auditorium and committee rooms in the State. This new building is located on Front Street, corner of Mulberry, in full view of the river, near the hotels and in easy distance to all the railroads, and the street-car passing the door.

The auditorium, which is beautifully lighted, will seat 550 persons, and will serve for the general and special sessions. There is an ample hall and waiting-rooms for candidates for the Board of Examiners on the third floor, and for other committee rooms on the second floor. All of the privileges of the establishment will be accorded to the members of the Society and their families and friends during their stay.

The seaside resorts will, by the time of the meeting, have opened for the season, thus putting the ocean within a few minutes ride by rail or by steamer.

From the mountains to the seaside is a sudden but a beautiful transition, and we want every doctor in the State who can leave his work with any kind of good reason, to come and sniff the ocean breezes, mixed with just enough of the odor of the shop to make it agreeable.

The Wilmington Medical Society has a Committee on Arrangements in working order, and all letters addressed to Dr. Robert D. Jewett, Secretary of the Committee of the Wilmington Medical Society, will be promptly attended to.

Those who have papers prepared and preparing for the meeting, will please communicate, without delay, with the Secretary, Dr. J. M. Hays, Oxford.

The Committee of Arrangements consists of Drs. Thomas F. Wood, Chairman *ex-officio;* Geo. Gillett Thomas, F. W. Potter, J. C. Shepard, W. J. H. Bellamy, Thos. S. Burbank and R. D. Jewett.

SOCIETY MEETING.

STATED MEETING OF THE BUNCOMBE COUNTY MEDICAL SOCIETY.

The stated meeting of this Society was held at Asheville, N. C., February 1st, 1892, with President K. von Ruck, M.D., in the Chair.

The regular paper for the evening was not read, owing to the absence of the essayist, Dr. Weaver.

Dr. von Ruck read the report of "A Case of Malignant Pustule" upon the fore-finger of the left hand, which came under his notice before general infection had occurred. The pustule presented the characteristics as described in medical literature, the source of infection was, however, obscure. The patient had been handling cattle, and the day before its occurrence had cleaned out with his hands the mangers of his cattle barn.

Microscopical examination of the discharging serum from the vesicle was negative, but upon consultation it was determined to destroy the vesicle and its base with fuming nitric acid, and to make culture experiments with the discharging serum. The culture in a moist brood oven, with a temperature of 100° F. succeeded, and the diagnosis was confirmed by the characteristic growth of the anthrax bacillus. The patient made a prompt recovery.

Dr. Watson related his experience with two cases of malignant pustule, which occurred in his practice some fifteen years ago, at a time when the subject of anthrax was not as well understood as now.

The diagnosis in the first case was therefore not promptly made, and the child died in forty-eight hours. In the meantime another child in the same family was also infected, the mother bathing a sore upon its leg in the same basin that had been used in bathing the pustule, and this child also died after a brief period.

Dr. Taylor said that he had never seen a case of anthrax in his practice, but referred to the case reported as a triumph in the progress of scientific medicine; by the application of its discoveries in bacteriology, the diagnosis had been established beyond a shadow

of doubt, and in the timely employment of proper means a life had undoubtedly been saved.

Dr. Williams reported the case of a primapara delivered after a tedious labor. Only two digital examinations were made during the progress, under antiseptic precautions. Anæsthesia became necessary in the third stage on account of rigid perineum. Bichloride solution 1 in 5,000 was used in irrigating the vulva and an aseptic pad was applied after the labor was completed.

There were a few rents in the vaginal mucous membrane and two very slight lacerations upon the cervix, such as frequently occur. The labor terminated without any complication at 5 : 20 a. m.

At 2 p. m. the patient experienced a chill lasting fifteen minutes; this was followed by a temperature of 102 5° F., which the doctor found upon his arrival. He irrigated the vagina with a bichloride solution, 1 in 5,000, and at 4 o'clock, with very profuse perspiration, the temperature fell to the normal and remained so throughout the lying-in period. Nothing further occurred to disturb the convalescence. Dr. Williams could not believe that the symptoms were of a septic nature, occurring so soon after delivery and subsiding so quickly and completely. He therefore favored the theory of a nervous disturbance resembling the reaction from shock, and asked for the opinions of other members.

Dr. Ballard and Dr. Watson inclined to the theory of nervous influence as a cause.

Dr. Taylor could not believe that shock existed, there being no such depression observed, and gave as his opinion that in such cases decomposition or biochemical changes of some kind must have preceded in the genital tract, especially in the uterine clot, and that the absorbed serum from such clot gave rise to the temporary septic symptoms. He had seen chill and fever follow the injection of defibrinated blood in acute anæmia in the course of a few hours, and believed that the absorption into the blood of the changed blood serum was a rational explanation in Dr. Williams' case.

Dr. Watson subsequently desired to be put on record as favoring a temporary sepsis, which he believed was more probable inasmuch as the labor had been tedious, and because no irrigation had been used after the labor was completed; the broken surfaces of the cervix and vagina being the avenues for septic absorption, which was arrested by the subsequent irrigation.

The Society then adjourned.

CORRESPONDENCE.

THE CASE OF AN INFANT OF A WOMAN ENSLAVED BY OPIUM DYING FOR LACK OF THE NARCOTIC.

Messrs. Editors North Carolina Medical Journal:

DEAR SIRS:—Anent the paragraph in the current numer of the JOURNAL from Dr. Wood's Therapeutics, in which he states that the new-born children of opium-eating mothers are prone to die within forty-eight hours for want of their nerve stimulant, I report the following case:

Sylvia P., æt about 40, a respectable colored woman, gave birth to her first child September 18th, 1886. Sylvia had for many years been a great sufferer from vaginismus and consumed large quanti ties of morphine daily. The late Dr. P. W. Young had several years previously removed her coccyx, and the labor, though slow, was uneventful. The child was well developed and all promised to go well. On the next day the child died in a state of collapse preceded by hæmatemesis. I studied the case very carefully at the time, but the authorities to which I had access were all very vague in giving the etiology of hemorrhage from the stomach in new-born infants. I reached the independent conclusion that the cause of death in this case was the sudden withdrawal of the morphine which had become an essential element in the blood of the child during its intra-uterine life. I am now more than ever convinced that this was the proper solution of the problem. Under similar circumstances I would in the future not wait for serious symptoms to develop in the child, but immediately after birth institute a course of treatment for the opium habit, based upon the quantity of the drug used by the mother. If the mother's normal weight were 120 pounds and the quantity of morphine consumed by her in twenty-four hours 8 grains, the proportion going to the child just before birth would be about ½ grain for the twenty-four hours This I should give (making out the proportions in each individual case, of course) with a gradual diminution in quantity until danger is past. I believe the hypodermic method of administration should

be used—a method not fully appreciated and far too little used in the treatment of children's diseases.

In connection with the case just reported I will say that parturition cured the vaginismus of so many year's standing, and I think Sylvia has never taken any form of opium since that day.

Yours, very truly,

J. M. HAYS, M.D.

REVIEWS AND BOOK NOTICES.

A SYSTEM OF PRACTICAL THERAPEUTICS. Edited by HOBART AMORY HARE, M.D., assisted by WALTER CHRISTIE, M.D. Vol. I. Philadelphia: Lea Brothers & Co., 1891. Pp. 1,050.

This is an encyclopediac work on therapeutics on a very elaborate scale, and "with a view to completeness the editor has introduced surgical therapeutics in the discussion of those ailments where such interference is indispensable."

The present volume is introduced by Prof. H. C. Wood, in a chapter entitled General Therapeutic Considerations. In this chapter will be found some wise and mature opinions from our foremost American therapeutist, from which one may catch suggestions upon points which diligent study may not have enabled him to formulate. The subjects he discusses are: Empiricism—"a method that may be defined as the using of a certain remedy in a certain disease because it has seemed to do good in similar cases"; Therapeutic Symptomatic Laws, which includes a consideration of Homœopathy. This "system" has never been much of a rival in the Southern territory, but we would presume the most ardent follower of it would not complain of unfairness of treatment from the pen of Dr. Wood. "It is plain," he says, "that neither in homœopathy nor in allopathy, neither in the doctrine of similars nor in the doctrine of dissimilars, is there the whole truth." * * * "Neither allopathic nor homœopathic doctrines are laws; they are mere expressions of coincidences, each of them base coin gilded with just sufficient of truth to pass current with the ignorant and the unwary."

The Scientific Method is discussed. Some of his conclusions are that, in following the scientific method, "we must acknowledge, first, as a fundamental axiom, that no amount of experimentation can overthrow a clinical fact, although when a contradiction between experimental and bedside observation seems to arise, such contradiction challenges the correctness of the alleged clinical and experimental facts alike, and should lead to a careful reëxamination." There are too many good points in this Introduction to allow us to pass by them, but as we must give our readers the entire physiognomy of the volume, we pass to other subjects, calling their particular attention to the section "On the Combining of Drugs." We believe more ignorance is shown by the generality of doctors in this one part of the art he practices than in diagnosis.

Professor Remington follows Professor Wood in a chapter of practical importance on "Prescription Writing and the Combination of Drugs." It is of elementary things he writes, and one taught in the shop after the good old custom would not need such a chapter. In fact, according to our way of thinking, it will take "line upon line, precept upon precept" to make the doctor who got no early training in pharmacy to attain unto respectability in the art of combining medicines and prescription writing. When he suspects he is wrong he will peep into this book for enlightenment, leaning eventually upon the kindly offices of his friend, the educated apothecary, to give the patient an elegant finished product, much after the manner of the contributor to the journals who submits crude throughts, inelegant composition, and illegible writing to the alembic of the editor's office in full confidence that the outcome will be a clear page of elegant typography.

"Electrical Therapeutics" is from the pen of Dr. A. D. Rockwell, a name now sufficiently established in this infant realm of science to give assurance of a true exposition of the subject.

"The Swedish Movements and Massage," and "General Exercise" have their proper places in a work of this kind, but these subjects are greatly over-written here and elsewhere. Now, if ever, is the time, and in such a work the place, to state authoritatively methods and results, and then relegate such elements to school-books on hygienics.

"Climatology," a department of knowledge in which we are

slowly accumulating some facts, is rationally considered in a well digested article by S. Edwin Solly, M.R.C.S., L.S.A. The scientific arrangement of the topics will encourage the student whose previous knowledge has come from the high-altitude advocates, the pine-belt zealots, or the tropical-air doctrinaires, whose beautifully illustrated pamphlets with the inevitable moral, flood the land, because in this volume he will find some substantial principles as to the possibilities of climate.

None are better able to write with authority upon the topic of General Sanitation that Dr. Henry B. Baker, the Secretary of the Michigan Board of Health. No one in this country has devoted so much persevering study to the subject as he, having exclusively devoted his life-work to this one department, making his reports text-books for other boards of health in the country.

"Tuberculosis," by Solomon-Solis-Cohen, M.D.; "Scrofulosis and Rachitis," by Walter Chrystie, M.D.; "Rheumatism and Rheumatoid Arthritis and Gout," by James Steward, M.D., and "Diabetes Mellitus," by Frederick A. Packard, treat these subjects on the broadest therapeutical basis, which, especially as regards tuberculosis, will be studied with that absorbing interest that attaches to the removal of the investigations of this dread disease, and under the hopeful stimulus of the opening sentence in Dr. Solis-Cohen's article—"TUBERCULOSIS IS A CURABLE DISEASE."

Having now made a running commentary of the first volume, it remains to give our general impression of it. This we will do in a few words. It appears to us to merit the same position in therapeutics as Pepper's System of Medicine does to the practice, or as Keatings Diseases of Children does to that branch. While some of the chapters on elementary topics are disproportionately elaborate, for even an encyclopediac work, the editor has done wisely in distributing the work among those whose competency in their special lines will secure the confidence of the profession.

We look forward with increased interest to the volumes yet to come, and as they will deal with special therapeutics, the merits of the whole work may be better comprehended and more wisely judged.

THE PRINCIPLES OF BACTERIOLOGY: A Practical Manual for Students and Physicians. By A. C. ABBOTT, M.D., with illustra-

tions. Octavo, 263 pages. Muslin. Lea Brothers & Co., Philadelphia.

The practical teaching of bacteriology has so recently been adopted in the medical schools that the vast majority of the practicing physicians to-day are entirely ignorant on the subject. It is a subject, however, that enters so largely into the etiology and prophylaxis of diseases that all physicians, who have at heart the advancement of the science of medicine and sanitation and the accomplishment of the greatest good, should acquaint themselves with it. Especially is this true of those physicians who hold the office of county Superintendent of Health.

For the beginner who must pursue his studies with only his textbook as his teacher, the volume before us is most excellently suited, for, as the preface says: "Presuming the reader to be unfamiliar with the subject, the author has restricted himself to those fundamental features that are essential to its understanding. The object has been to present the important ideas and methods as concisely as is compatible with clearness, and at the same time to accentuate throughout the underlying principles which govern the work. With the view of inducing independent thought on the part of the student, experiments have been suggested wherever it is possible."

The subjects on sterilization, disinfection, and the bacteriological study of water, air and soil especially, deserve the careful attention of superintendents of health.

Chapters are devoted to the preparation of media, the technique of making dates, methods of staining, solutions employed, etc. In short, the book is practical and useful. R. D. J.

PLAIN TALKS ON ELECTRICITY AND BATTERIES; with a Therapeutical Index. For General Practitioners and Students of Medicine. By HORATIO R. BIGELOW, M.D. Philadelphia: P. Blakiston, Son & Co., 1891. Pp. 85. Cloth.

There is so much written about, and such contrary opinions as to the value of electricity in therapeutics, that the general practitioner who has little time and less inclination to enter into the wrangles of the disciples of the different leaders, will be glad of this little volume of 85 pages; for here they will find a short and practical description of the three varieties of electricity—static, galvanic and induced—with a definition of terms, descriptions and cuts of the

machines best adapted for the general practitioner, and an index of the therapeutic application. He is thus enabled, with the least expense, to secure the best apparatus with which to make the tests for himself. Without this direct clinical study of the subject, any opinion as to its merits must be based on simple faith of the statements of one side or the other. R. D. J.

SURGICAL ANATOMY, FOR STUDENTS. By A. MARMADUKE SHIELD, M.B. (Cantab), F.R.C.S. New York: D. Appleton & Co, 1891. Pp. 226. Cloth.

In the preface the author says: "The book is intended for students to use with the living model. The study of surgical anatomy from illustrations alone is answerable for many of the rejections in this subject at the final examinations. No picture or description will enable a student to instantly compress the subclavian artery, place his finger on a given prominence, or name a deeply seated tendon." In accordance with this idea the author has omitted all illustrations from his work, making it necessary for the student, if he understands what he reads, to demonstrate it for himself on the subject. The author further says: "These demonstratio ns have always been given upon the living subject"; so that it would be entirely practicable for students rooming together to use each other as subjects. Anatomy is the ground-work upon which all medical and surgical knowledge is built, and the building will surely be unstable and unsafe unless this ground-work is carefully and thoroughly laid. It is a branch that has in former years been sadly neglected in the colleges, and *the branch*, more than any other, that has been the cause of failure to pass the State examinations in this State. This system of "State inspection" has caused more attention to be given to the subject, as the rating of the papers in the hands of the Secretary of the State Board of Examiners will show.

This work is devoted exclusively to surgical anatomy, with only sufficient allusions to operations and injuries to make the text interesting and to show the application of the knowledge.

The book is small enough (by the omission of cuts) to be carried in the over-coat pocket, and the subject-matter is carefully treated. The usefulness of the book is only slightly marred by such a *lapsis pennæ* as, on page 37, where the third part of the subclavian artery is described as extending "from the outer border of the scalenus anticus to the outer border of the *last* rib," or that on page 169, where Nelaton's line is given as a "line from the anterior-superior spine to the tuberosity of the *ilium*." R. D. J.

CURRENT NOTES.

PAY OF MEDICAL OFFICERS IN THE AMERICAN REVOLUTIONARY ARMY.—Colonel, $75; Surgeon, $33.33; Surgeon's mate, $18 a month; but in addition to this they were to get land, from 200 to 500 acres, if the war ended successfully. Confederate Assistant Surgeons got $110 a month, the purchasing value of which, when the war ended, was so impaired that two months wages would not buy a pair of cavalry boots, and after taking seven milk punches his $10 in change might have bought a pocket-knife.

VACCINATION.

To vaccinate or not? That is the question;
Whether 'tis better for man to suffer
The painful pangs and lasting marks of small-pox,
Or to bare arms before the surgeon's lancet,
And, by being vaccinated, end them? Yes,
To feel the tiny point, and say we end
The chance of many a thousand scars
That flesh is heir to, 'tis a consummation
Devoutly to be wished. Ah! soft you now,
The vaccination! Sir, upon your rounds,
Be my poor arms remembered.—*Puck*.

CHLORALAMID TO PROCURE SLEEP FOR PNEUMONIA PATIENTS.—It is always a matter of perplexity to induce sleep, usually so much needed with our pneumonia patients. All opiates are for most part contraindicated, and none of the anilide preparations are entirely safe. Charteris says in his excellent little work on "Practice": "Sleep in some cases must be secured by a hypnotic, and to obtain this without interfering with the progress of the disease, chloralamid, in a dose of 20 or 30 grains, appears to be better than any preparation of opium, as its action does not materially influence the breathing or the circulation. Bromide of potassium, "in a dose of 30 grains, is also valuable, but its action is not so certain as that of chloralamid." It may be given in weak spirituous or acidulated solution. It is incompatible with alkalies.

LARGE DOSES OF IPECACUANHA IN DYSENTERY doubtless had its confirmation and general adoption by the profession from the

writing of Dr. W. E. McLean in Reynolds' System of Medicine. But the earliest notice of it we find is in *Memoirs of the Medical Society of London*, 1799, in an article by W. Balmain, chief surgeon of New South Wales, who caught the idea of large doses from the popular favor in which it was held among the people as a domestic remedy, having been introduced as a nostrum by a man who was the son of a German soldier. The dose was from 1 to 2 drachms, with addition of a few drops of tincture of opium. This new therapeutic measure was sent to the Medical Society of London December 21, 1795. Dr. McLean attributed the revival of *Radix Anti-Dysenterica* (as it was called, have been known in Peru from remote times) to Mr. Docker, an English surgeon. Jean Adrian Helvetius [1661–1727] first used it in Europe as a decoction for dysentery. There must be an earlier date even than that of Balmain, namely, 1795. Can anyone put his finger on it and inform us?

Local Chloroform Anesthesia.—In the *Medical Press* for November 18, 1891, a correspondent reports the following method of producing local anesthesia: "During the past winter I removed a small tumor from the hand of a nobleman in Rome, having first frozen the part by means of chloroform applied by spray. Unwilling in this case to administer it internally, and anxious to try its effect externally, I sprayed his finger about ten minutes with chloroform. Before commencing the operation the finger became quite cold, and felt like a piece of ice. The removal of the tumor subsequently was not felt by the patient. The chloroform did not produce any effect on the circulation nor on the nervous system. The operation lasted about five minutes, the patient declaring he felt nothing. I drew the cut surfaces together with silver wire, which I removed on the fifth day, the part healing by first intention under carbolic acid lotion.—*Therapeutic Gazette.*

Forty Year's Experience in the Use of Chloroform is the caption of an article by Dr. Lombe Athill, ex-master of the Dublin Rotunda Hospital, reprinted from the *British Medical Journal* by the *Canadian Practitioner* February. He makes an estimate that he has administered chloroform 17,000 times with only one death. This death he does attribute entirely to the anesthetic. It was the case of a woman with a very large ovarian cyst. After she made two or three inhalations the anesthetist exclaimed that

she had ceased breathing. Artificial respiration was begun, but one of the by-standers exclaiming "lower her head," this was done. Some one seized her legs and elevated her pelvis, while another pulled her shoulders off the table till her head almost touched the floor. The effect of this was that the huge tumor pressed against the diaphragm so powerfully that she could not breathe. Too much zeal by the by-standers in the wrong direction, too much zeal by Dr. Athill for chloroform, possibly too much zeal by us in publishing those items that favor the anesthetic of our choice. It is anesthesia that is always dangerous, whether it be by whiskey bichloride methyl, nitrous oxide, ether, chloroform: the patient who is suspended between life and death in this wonderful condition of abolished sensations, must be in safe and experienced hands, and by-standers should not be allowed.

A PHYSICIAN'S ESTIMATE OF HIS CLASS.—In Dr. S. Weir Mitchell's interesting "medicated novel," "Characteristics," that is being published in the *Century*, there is the following description of varieties of medical men that will suggest acquaintances to many of our readers: "There is no place where good breeding has so sweet a chance as at the bedside. There are many substitutes, but the sick man is a shrewd detective, and soon or late gets at the true man inside of the doctor. I know, alas! of men who possess cheap manufactured manners adapted, as they believe, to the wants of 'the sick room'—a term I loathe. According to the man and his temperament do these manners vary, and represent sympathetic cheerfulness or sympathetic gloom. They have, I know, their successes and their commercial value, and may be of such skillful make as to deceive for a time even clever women, which is saying a great deal for the manufacturer. Then comes a rarer man, who is naturally tender in his contact with the sick, and who is by good fortune full of educated tact. He has the dramatic quality of instinctive sympathy, and, above all, knows how to control it. If he has directness of character too, although he may make mistakes (as who does not?), he will be, on the whole, the best adviser for the sick, and the completeness of his values will depend upon mental qualities which he may or may not possess in large amount. But over and above all this there is, as I have urged, some mystery in the way in which certain men refresh the patient with their presence. I fancy

that every doctor who has this power—and sooner or later he is sure to know that he has it—also learns that there are days when he has it not. It is in part a question of his own physical state; at times the virtue has gone out of him. I had a rather grim but most able surgeon. He seemed to me to have a death-certificate ready in his pocket. He came, asked questions, examined me as if I were a machine, and was too absorbed in the *physical me* to think about that *other me* whose tentacula he knocked about without mercy, or without knowledge that tenderness was needed. Our consultant was a physician with acquired manners. He always agreed with what I said, and was what I call aggressively gentle; so that he seemed to me to be ever saying, with calm self-approval, 'See how gentle I am.' I am told with women he was delightfully positive, and I think this may have been true, but he was incapable of being firm with the obstinate. His formulas distressed me, and they were many. He was apt to say as he entered my room, 'Well, and how are we to-day?' And this I hated, because I once knew a sallow undertaker who, in the same fashion, used to associate himself with the corpse, and comfort the living with the phrase, 'We are looking quite natural to-day.'"

Vaccination is the title of the leading article in *The Journal of the American Medical Association* February 20th, by Dr. W. H. Washburn, of Milwaukee. How much such articles are needed may be judged by the great ignorance that exists in regard to this only known prophylactic. The medical profession of this country is in good condition to accept the anti-vaccination volumes of Crookshank, and Dr. Washburn does good service in restating the whole subject of vaccination—historical, pathological, prophylactic, statistic—to remind the professisn of the old landmarks. We noticed one good sign at the meeting of the American Medical Association in Washington last May, the two elegant volumes of Crookshank were being closed out by the American publishers at a nominal price, the inference being that they have not impressed the reading public favorably.

Dr. Henry I. Bowditch.—The death of this venerable pioneer in sanitary thought recalls to us of this generation his epochal paper "On Soil Moisture as a Cause of Consumption." He was 84 years

old when he died, his life having spanned a period of great advancement in American medicine, in much of which he was a leader or a co-laborer of earnest workers. His presence at the conferences of the Boards of Health which led up to the organization of the National Board of Health, is remembered by the writer with much pleasure. He had a place in his heart big enough for all sections of this great republic.

Spectacle Itinerants Who Practice Without License are Illegal Practitioners.—One who prescribes spectacles for the rectification of defective vision is as liable to the law for practising medicine as one who prescribes drugs or gives any other medical advice. The New York *Medical Record*, February 20th, says such was a decision recently in a Havre court. Surely what is good law in France must be good law everywhere else.

Thilanine.—"This is a new modification of lanolin, obtained by Liebels by the action of sulphur on lanolin, and which is stated to be a definite compound. Dr. Sadlefeld, of Berlin, has experimented with it in his dermatological practice, and reports very favorably on its action in various affections. It gives rise to no irritation and allays all itching, and is said to be destined to supersede Hebra's ointment in dermatological work."—*British and Colonial Druggist.*

Ricord's Epitaph.—In an interesting address on Ricord, delivered at the annual meeting of the *Société de chirurgie* by the Secretary-General, M. Monod, which is published as a *feuilleton* in the *Union médicale*, we are told that M. Ricord had, long before his death, made careful preparations for his interment, and had written his own epitaph, which he often read to his friends, and with which he seemed to be pleased. The lines are as follows:

Aux portes de l'Eternité,
Quand j'aurai fini ma carrière.
S'il me reste un peu de poussière
De cette triste humanité,
Que le tombeau seul s'en empare ;
Que de mon âme se sépare
Cette cause de mes douleurs ;
Car l'âme pure et sa matière
Doit être un rayon de lumière
Que ne troubleront plus res pleurs.—*N. Y. M. J.*

St. Luke's Hospital, New York, is to be removed to 113th St., in immediate juxtaposition to the Cathedral of St. John the Divine. The medical profession has warm-hearted praise for the management of St. Luke's.

Will any of our readers help us out in the following inquiry:

"Rosindale, January 25.

"Dear Doctor:—Do blowing a harp injure the eye-sight?

"Yours, truly,

"_____."

Common Thyme in Whooping-Cough.—Common thyme, which was recommended in whooping-cough three or four years ago by Dr. S. B. Johnson, is regarded by Dr. Neovius, who writes a paper on the subject in a Finnish medical journal, as almost worthy of the title of a specific. During an epidemic of whooping cough he had ample opportunities of observing its effects, and he came to the conclusion that if it is given early and constantly it invariably cuts short the disease in a fortnight, the symptoms generally vanishing in two or three days. They are liable to return if the thyme is not taken regularly for at least two or three weeks. He gives from one ounce and a half to six ounces per diem, combined with a marshmallow syrup. It may produce a slight diarrhœa. It is quite important that the drug should be used quite fresh.—*Amer. Jour. Med. Science.*

Treatment of Senile Gangrene.—Heidenhain (*Deutsche med. Woch.*) gives the results of treatment in 30 cases of senile gangrene, many of them in diabetic patients; and draws attention to the importance of ascertaining whether, in addition to the arterio-sclerosis and atheroma, there is thrombosis of any artery in the lower limb. To such thrombosis the recurrence of gangrene after amputation is probably frequently due. He proposes to divide these cases of arterio sclerosis and senile gangrene, especially in diabetics, into two groups, according to the etiology. The first group would include cases in which gangrene sets in after some slight injury, where sclerosis, possibly assisted by the saccharine state of the blood, sets up gangrene by interfering with the circulation. To the second group are to be assigned those cases—proba-

bly more numerous than the first—in which gangrene, although apparently spontaneous, is in reality due to previous thrombosis of some artery in the popliteal space or in the leg. Heidenhain's experience in treating these cases leads him to make the following recommendations: Where the gangrene is limited to one or two toes, avoid surgical interference; when, on the contrary, the gangrene has reached the metatarsal region, amputate through the femur above the condyles, taking care to cut as small skin flaps as possible. Greater success attends such high amputation than where an operation is performed lower down.—*Supplement to the British Medical Journal.*

Dr. James Stuart Devane died during January at his home on the Cape Fear River, in Bladen county, of epidemic influenza. He had practiced in the same neighborhood for many years under the most discouraging circumstances, Farmer Stuart feeding Dr. Stuart, as we so often know is the case with many country practitioners. One of his neighbors said of him after his death, that a great objection to Dr. Stuart was that he would neglect a paying patient to go to a charity case, and often abandoned everything else until he had done his utmost for the poorer neighbor. The community he served sorely misses his services. Dr. Stuart was a man of good education, enjoying far more the pleasures of polite learning than the literature of his profession. The editor of the Raleigh *News and Observer* says of him: "Dr. James Stuart Devane, who has recently died in Bladen, was a descendant of the House of Stuart of Scotland. After the battle of Culloden, Wm. Stuart fled to France, where he married into the DeVane family, and subsequently emigrated to America. He was the ancestor of Dr. DeVane."

Subcutaneous Use of Ergotin.—Dr. Driver (*Therp. Monatsh.*) says that acute hæmoptysis coming on suddenly and due to erosion of large vessels cannot be stopped by any injection of ergotin, but that the cessation is brought about by the coagulation of the blood in the cavity acting as a tampon. Absolute rest and the controlling of the cough by morphine are necessary. There is no object to be gained by the icebag, and the inhalation of astringents is harmful. In cases of continued capillary hæmorrhage from the walls of the cavity (which must be looked upon as due to a congestive hype-

ræmia), the author says that combined with measures to increase the heart's action, ergotin is almost a sovereign remedy. The dose used is generally too small. If the bleeding is severe 0.5 to 1.0 g. should be given. After disinfecting the syringe the required amount of ergotin (Bombelon) is taken up, and the syringe filled with distilled water or a very weak solution of carbolic acid or morphine. This is injected after the skin has been thoroughly cleansed. In this way no inflammation or suppuration will arise.—*Sup. to Brit. Med.*

Sir Morell Mackenzie, M.D., died on the 3d of February of asthma. He was for a long time a sufferer from this disease. An attack of influenza in November intensified his old enemy the asthma, he became much worse on the 19th January, and died with syncope after a fit of coughing. He was born in 1837. He was of Scotch extraction. His visit to Pesth, and his acquaintance with Czermak, who had just made practicable the laryngoscope discovered by Garcia, inclined Mackenzie to the specialty which he pursued in after years with such distinguished ability. His knowledge of the laryngoscope, and his skill in teaching its use, attracted students to him from all parts of the world, and established the practice in Great Britain. His contributions to the science and practice of laryngoscopy, including laryngeal surgery, are very great, and when we consider that these volumes were produced in the hours he could spare from an enormous private practice and hospital service, the real amount of labor will be apparent. His notoriety during the treatment of "Frederick the Noble" is the least attractive part of his brilliant career, but his perplexities were great and the jealousy of his enemies irritating in the extreme. Peace be to the ashes of one who added such great gifts to his profession.

Back Again to the Apprenticeship System.—In addressing a British medical society, Dr. Orlando Jones (*Brit. Med. Journal*, January 9, 1892), in suggesting improvements in the public standing of the medical profession, says: "In the first place, I think that the tone of the profession might be raised by the introduction of a law enforcing at least one year's apprenticeship before the commencement of the ordinary course, during which time the compounding of drugs and other preliminary work could be studied,

which would be of great benefit to the profession in various ways.—*Maryland Medical Journal.*

Dr. R. F. Licorish, of Bridgetown, Barbadoes, is an occasional contributor to the *Medical Record.*

Faradization in Incontinence of Urine.—We read in the *Archives of Gynæcology* that Dr. James reports a case of incontinence in a girl aged 15, where internal medication had failed of any result, in which a complete cure was obtained by faradization of the urethra—the negative pole in the urethra, and the positive on the thigh.—*Maryland Med. Jour.*

Amenorrhœa of School-Girls.—Dr. T. A. Reamy (*Cincinnati Lancet Clinic*), in discussing the amenorrhœa in anæmia, common to school-girls, says: (1) She must leave school, and must not even study at home. (2) She must spend several hours each day in the open air, either walking or riding. In winter she must of course be warmly clad, but must wear no sheepskins or other chest-protecting pads. Standing in the open air, she must be induced to breathe deeply with the mouth closed; this should be done for at least fifteen or twenty minutes, and be repeated at least twice a day. Nothing that can be done will more rapidly improve the character of her blood. (3) She must sponge her extremities and body each morning on arising from bed. The water must be of the temperature of the room, and she must practice friction freely with an ordinary towel. (4) She must drink plenty of milk and eat plenty of beefsteak. (5) She must take small doses of iron, combined with some bitter tonic, three times a day. Improvement may be somewhat slow, but if this course is faithfully carried out, a perfect cure will result, and her education may then be finished. If this course or its equivalent be not followed, these cases will go from bad to worse, and finally die from pulmonary tuberculosis.—*Arch. Gyn. Obs. and Ped.*

Treatment of Pneumonia.—In the *Edinburgh Med. Journal* for November, 1891, Dr. George W. Balfour writes: (1) There is no true specific for the cure of pneumonia. (2) That a favorable ratio of recoveries to cases does not indicate any specially curative virtues in the remedy employed, but merely a concatenation of

favorable conditions in the cases treated, and this may be either accidental or the result of careful selection. (3) That the remedy which most deserves our attention is one capable of relieving the most distressing symptoms *tuto, cito, et jucunde.* This observer thinks that a purge to clear "a dirty tongue" in the early stage of pneumonia is more harmful as a depressant to the heart's action than beneficial to the digestive tract. There are two conditions to be guarded against: 1st, excessive consolidation of the lung-substance, and, 2d, excessive temperature. The latter is especially formidable. When the temperatureis not high, consolidation offers no great impediment to the heart's action and can be readily handled. After trying many ways of treatment he concludes that the sleeplessness, pain and cough of pneumonia are best met by digitalis and chloral. He gives digitalis as an infusion together with Liebreich's chloral dissolved in it, the dose for an adult being 20 grains of chloral in half an ounce of infusion every four hours. After the first, second or third dose the chloral could be reduced one-half, continued until the temperature became normal, and then replaced by a tonic. Locally, a jacket-poultice or cotton wool proves very useful. The diet should be carefully arranged. Under this treatment the crisis is well marked, the heart's action carefully nursed, and the patient made thoroughly comfortable.—*Inter. Med. Magazine.*

"THE GOOD BED-SIDE MANNER."—The true basis of the good bed-side manner is a large heart. Some expansiveness of the intellect is undoubtedly an advantage, but a humane and sympathizing nature outweighs all other qualities. The late Dr. Fordyce Barker has left a name as being one of the most winsome of the clinicians of his day and generation, and it is partially from the reflection that we do not know his exact peer, that this pen has taken up this theme. The ages or generations repeat themselves measurably, and other Barkers have been and will be, but our present feeling is that a bright and shining light has been extinguished. He would not have styled himself a physician of the old school, but such he was, however, to the extent of not yielding up all of sympathy to the utmost of science. He, at no part of his career, failed to have a winning way with his patients, and seldom did any physician inspire so complete a confidence. But as years revolved he became even

more tender. His kindly courtesy was not reserved for the rich alone. On more than one occasion he has been known to bend over and kiss upon the forehead some poor woman in the hospital, who had been the patient subject of a serious operation. It was the impulse of the moment and an unmistakable index to the largeness of his heart; a passing benediction, as if one had said, "God bless you and heal you, my child." A very winsome man, as a surgeon, was Willard Parker, who passed away from a busy life in 1884, generous and benevolent, even to a fault. That is to say, his stream of human kindness he would not stop even if some of it helped to refresh the undeserving. He was wholesome in appearance, bright-eyed and hearty; his mere advent was a blessing to many a despondent sufferer, and he seemed to serve as an embodiment of one of his favorite doctrines, that, "after all, health is more interesting than disease, and a more important concern, both to the doctor and the patient" On one occasion he had been called into the country to visit an eminent senator of the United States. Hurrying from the railway station to the home of the patient, he tarried not to be announced, but bounded up stairs, two steps at a time, to be at once welcomed with, "Why, is that you, Dr. Parker? I declare, I feel better already." He was one of those who form a living answer to the captious question of the skeptic, when he asked, "And why has not God made health contagious as well as disease?" There are infectious properties of soul—as charity, fortitude, good humor—which react in a saving way upon the corporeal parts of men. Cheerfulness is in some sense a duty imposed upon the practitioner, which, aided by the "light address," the *hilaris vultus* of Celsus, has the power of inspiring confidence. The impression which it conveys is that the professional man is the possessor of abundant resources and is the master of them. In this view of the case, some of the early law-givers, as in the reign of Henry VII, must have erred when they sought to legislate a sad countenance upon the healing fraternity. A statute of that reign ordained that the practice of medicine should be limited to those persons "that be profound, sad and discreet, grandly learned and deeply studied in physic." . . . In the *Hospital Gazette* is given the following incident, said to have been related by Sir Richard Quain, of Dictionary fame, which gives point to our moral: He had been in attendance upon the wife of an old patient, and at one of his visits

the husband set the doctor to thinking with the remark: "I greatly appreciate the anxiety you feel for my poor wife, but do not let her see it again, for after you left the room she asked me if you were the undertaker." . . . There is an old book, the "Anatomie of the Bodie of Man," written by Thomas Vicary, chief surgeon of St. Bartholomew's Hospital from 1548–'62, which shows that medicine has in the earlier times claimed the allegiance of noble-hearted and clear-speaking men. It says that the doctor must be learned, must know his principles, be seen in natural philosophy, in grammar, must speak congruously in logic, speak seemly and eloquently, know things natural and non-natural, and above all, be good-looking—for whose face is not seemly, it is impossible for him to have good manners. The "good looks" here advocated by the ancient surgeon, imply not so much the fine features of physical beauty as of the countenance irradiated by good feeling and good deeds. Mr. Robert Louis Stevenson, in his book called "Underwoods," says: "Generosity the physician has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments, and what are more important, Herculean cheerfulness and courage; so it is that he brings air and cheer into the sick-room, and often enough, though not as often as he wishes, brings healing." Dr. Weir Mitchell, in the current number of the *Century*, has given some graphic sketches of the bad traits of practitioners at the bedside. They may be found in "Characteristics" (a thinly medicated serial), where he speaks briefly of the man who is by nature tender in his contact with the sick, but also of the imitation sympathizer who does not long impose upon the sick; "for there is no place," he says, "where good breeding has so sweet a chance as at the bedside. There are many substitutes, but the sick man is a shrewd detective, and soon or late gets at the *true man inside* of the doctor."—*Jour. Amer. Med. Asso'n.*

"QUIZ" CLASS FOR CANDIDATES FOR THE LICENSE OF THE STATE BOARD OF MEDICAL EXAMINERS IN MAY.—Dr. J. P. Munroe, of the Davidson Preparatory Medical School, opens a "quiz" class for physicians who intend to be candidates for the license of the Board of Examiners next May. His term lasts from April 1st and the fee is $25.

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Dr. G. W. Weld's extensive experience in the practice of dentistry led him to recognize the virtues of the tincture of the chloride of iron as a stimulant resource for patients after the strain of the dentist's work. Repeated experiments to obtain a formula free from the objectionable features resulted in the preparation of a highly palatable syrup with all the therapeutic efficacy preserved. This has been extensively tested and placed in the hands of Parke, Davis & Co. for manufacture, who strongly commend it to the medical profession for trial. Being prepared after Dr. Weld's formula, it is entitled Weld's Syrup of Iron Chloride (P., D. & Co's). It is believed it will effect a revolution in iron administration.

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ORIGINAL COMMUNICATIONS.

THE TREATMENT OF TYPHOID FEVER.

By Robert C. Kenner, M.D.

(Read before the Mississippi Valley Medical Association at St. Louis, October 15, 1891.)

The treatment of typhoid fever in a manner that will lessen the mortality and abbreviate its duration is, in the present state of our knowledge, the best thing possible in the power of the physician.

It shall be my object in this paper not to discuss the relative merits of a great many modes of treatment which have found favor with various observers all over the world, but to direct the attention of the profession of the Mississippi Valley to some important measures which have the endorsement of the most painstaking clinicians of Europe and America, and which, by the results attained,

seem to make clear the way to us who strive to render the greatest possible assistance to those whom we are called to treat. Let us examine the various demands of a case of typhoid fever, and discuss the measures which are appropriate and indicated. The room which the patient occupies should be light and the temperature carefully noticed, that it may become neither too cold nor too warm. The bed should be placed so that light will not fall directly in the patient's face, and everything should, as far as possible, be arranged so as to contribute to his comfort. The nurse should be impressed with the great importance of the patient remaining in the recumbent position in bed. The tax upon the strength from the least exertion is so great as to make heart-failure possible and probable. To the neglect of this is to be charged the death of many patients who were convalescing fairly. In his lectures the late Prof. T. S. Bell used to insist on this with some enthusiasm, and cited several cases where he had known death from this cause. A patient should not be allowed to lie too long on his back The danger from hypostatic pneumonia may be obviated by having them to change from side to side occasionally, and not allowing him to remain for a great while on the back. Some nurses are not acquainted with the fact that pneumonia is often caused by allowing their patient to lie near an open window. Many deaths, I am persuaded, are caused by not observing this important rule. Another precaution which Dr. Hutchinson enjoins, and which is of great importance, is that the patient should not be allowed to go out until his strength has been regained to such an extent as to warrant it. The habit of allowing patients to go about who have only a few days prior ceased to have fever, can only leave open to him numerous sources of danger, which it is altogether possible may undo all our work and wreck him.

The question of *diet* is one of the very greatest importance, since starvation is one of the greatest dangers in this disease. Fenwick (quoted by Prof. Thompson in his paper) has shown that in typhoid fever the stomach loses half its bulk; that its functional activities are very greatly diminished, and that it produces less gastric juice than it does in those patients who die of phthisis. This ought to teach us to avoid all solid food, and to assist the weakened organ all we can by the administration of liquid diet and the proper amount of pepsin. In doing this, one—and I regard it the best article of diet—is milk. Prof. Thompson thinks it should be

diluted—on accout of the aforesaid debilitated condition of the stomach—with one-half of the quantity of lime-water. I agree in this, and use it in this manner. I think the lime-water exerts an antiseptic effect on the intestinal tract and is most valuable. It is my practice after each taking of milk to have the patient administered a dose of lactopeptine, which assists the stomach in the process of digestion and materially strengthens our patient. This I regard as very important, and I see that it is carefully followed. Some patients cannot or will not take milk, and in these instances we are compelled to use some of the food products offered us by manufacturing chemists. The liquid beef peptonoids have afforded me good results, and I feel that some of my patients would not have recovered but for their use. The quantity of milk which should be taken is quite important. Dr. Hutchinson says that "Most adult patients will be able to take from a quart and a half to two quarts daily, in quantities of from four to six ounces every two or three hour-." I believe this amount sufficient, and consider my patient on safe ground if he can take this amount and digest it. The proper and timely use of *stimulants* afford the most positive and valuable assistance in the management of this disease. Prof. W. H. Thompson's principle of the administration of stimulants is so correct that I may be permitted to quote his words: "The highest point of vital power is about 10 a. m. and the lowest about 2 a. m., and between these two poles the pendulum swings from the full activity of the forenoon hour to the decidedly lessening strength of evening, until it reaches the fall of the last of all functions to vary, namely, the bodily temperature, frequently in good health, amounting to over a degree and a half, between 2 and 5 o'clock in the morning, often causes us to awaken and increase our bed-covering. These variations are still more strikingly illustrated in disease, as witness the first appearance of night-sweats in phthisis, and the most frequent time of onset of looseness of the bowels in chronic diarrhœa. It is, therefore, my practice to direct that stimulants should at first certainly be given in typhoid only after midnight; afterwards, as weakness progresses, in the evening, and earlier than this only as the indications are unmistakable for them. When given, also, an ounce every three hours of whiskey is better than twice that amount administered in half-ounce doses every half hour. Meantime the forenoon is the time to push feeding, rather

than to increase the administration later on, because the patient then seems weaker." It is important that the physician see that the nurse fully comprehends the demand for stimulants. The rule which I strive to have a nurse comprehend is that the *pulse must be kept full and regular*, and that it is not the regularity of administration that will bring this about, but that a sufficient quantity given often enough will only accomplish it. Late in the night, when the vital forces are lowest, I am sure I have seen the issue of life turned in the favor of the patient by a wise administration of stimulants. I give, as I shall later on describe, wine or whiskey, while the patient is in the bath, when the patient is to be lifted upon the stool, or is called upon to make the least exertion. I believe it important to reinforce his strength by the administration of stimulants. I of course refer to the use of alcoholic stimulants. The best alcoholic stimulant to be employed is a matter not hard to settle. The preference of the patient generally determines me in these instances. I usually prescribe whiskey or French brandy, but wines answer the demand as well. With the use of camphor as a cardiac stimulant I have not had experience, though it has been lauded by several German clinicians. Dr. Hutchinson lays stress on the point of water-drinking in this disease, and reminds us of the importance of water in this disease where there is so much combustion, and that it is a diuretic of great value. I have not forgotten this in the treatment of my patients, and have charged nurses to give it regularly to patients who were unconscious, or who did not call for it. There can be no reasonable doubt that we do a most necessary thing for our patient in bringing about intestinal antisepsis if that is possible. Prof. Thompson says: "It has been estimated that the quantity of the secretions which are daily poured into the alimentary canal by its apparatus of glands is equal in bulk to the mass of the blood itself, nearly every part of which is reabsorbed into the circulation This great flow and reflow of secretion, indeed, might be called a second circulation to that of the blood itself, and we can readily see how, in the sojourn of the fluids in the stomach and bowels, every chance may occur for the entrance into the systemic circulation of enough neurotic poisons to produce most symptoms of the disease, both of a nervous and muscular kind, as well as originate a great variety of the familiar sequelæ of this fever. Upon every rational ground, therefore, intestinal anti-

sepsis seems to be indicated in typhoid fever." Prof. Thompson regards subcarbonate of bismuth as the best intestinal antiseptic, and there can be no question that it is valuable, and it is, as he says, mild and unirritating.

I, however, rely most on salol, having found it most valuable, not only to produce intestinal antisepsis, but to relieve the tympanites. It is my custom to have my patients take 15 grains of salol per day, and a greater amount than this if there is much tympanites. This practice has rendered me, I feel sure, much service, and I think one of the most important indications is to use this agent, which I think possesses advantages over all others for the production of intestinal antisepsis. The fact that cases of typhoid fever all over the Mississippi Valley are more or less complicated with malaria, and because quinine in small doses exerts a tonic and supportive influence, it is my custom to give from 3 to 6 grains daily to my patients. I usually order it and the salol put into a capsule in the proportion of 5 grains of salol and 1 or 2 grains of quinine. This is administered three times daily.

Diarrhœa is often a troublesome issue of this fever. Before I began the use of salol, as above indicated, I was more annoyed than I am now about the diarrhœa. Salol is itself one of the best remedies we possess for the control of this symptom. I generally prescribe bismuth subnit and pepsin, when this becomes too severe. The indication for turpentine, as laid down by the late Prof. Wood, was when the tongue became dry, and it without question yields us great good in these cases. The use of antipyretic drugs were several years ago very popular, but they are now losing their following. "These agents are," to use the words of Prof. Thompson, "one and all muscular paralyzers." They relieve the symptom-fever, but they exert a pernicious influence on the heart, and in that they weaken it—an organ which in this disease can with little judgment be taxed further. For this reason I have ceased to employ these agents, and I believe the voice of the profession of the world is against their use. I have not considered it necessary to take the time to enter upon an account of the objections against these drugs individually, or give any extended list of reasons why their abandonment has been begun by the profession, believing that you are familiar with these reasons.

I have waited until the last to discuss the merits of what I con-

sider the most important part of the treatment of typhoid fever. I refer to the treatment by cold bath as used by Brandt of Stettin. The treatment by the cold bath was used by James Currie, whose name is imperishable, both in the annals of medicine and literature. He was the biographer and friend of Robert Burns. But to Brandt we are indebted for the systematic manner of treating this disease by the cold bath. He gave the practice its present impetus, and pointed out its superiority over all other modes of treatment.

Those who have given the treatment the severest tests claim that it tends to strengthen the patient, and that complications are less likely to occur, and of course the duration must be shorter. In the earliest edition of his work on therapeutics Prof. Wood truly says: "All those physicians who advocate the use of cold baths in typhoid fever and typhus fever appear to be agreed that, although the mortality is very much reduced, the duration of the disease is shortened only in so far as complications are avoided. As, however, the patient is left by the disease much stronger than he is when the expectant method of treatment is pursued, convalescence is much more rapid than under the old plans.

By the antipyretic treatment the intense prostration, delirium, stupor, carphologia, involuntary passages and other manifestations of the typhoid state are greatly lessened. The relief afforded is so evident to both patient and attendants that they usually, after one trial, acquiesce in the regular employment of cold baths, although to the one the senations are at first very disagreeable, and for the other the labor and attention required are very much increased. The antipyretic use of cold in typhoid fever has not, however, been free from determined opposition (see discussion in Le Progrés Med., 1877; also Bull Therap. xci), and the assertions in its favor are evident exaggerations. I am, however, thoroughly convinced by my own experience, as well as by the great mass of recorded evidence, that the treatment of typhus and typhoid fever by cold is of the utmost value, and I believe that the cold bath is *much safer and more efficient than are antipyretic drugs.* In America the method has met with comparatively little favor, chiefly because of the labor it involves and of the prejudice of the laity. I have no doubt that very many persons have died in the United States of typhoid fever whose lives would have been saved if the American medical pro-

fession had risen above the opposition of the laity and above its own prejudice."

A fair way to decide the value of this treatment, Dr. J. C. Wilson says, "is to determine *first* what effect it has on the course of the disease, and secondly what percentage of mortality follows it" There can be no doubt that if, under these tests, this plan of treatment is able to make good showing, that it is destined to receive the confidence it demands.

The temperature when this plan of treatment is employed never reaches a high point, and the danger from this source is brought low. The circulation is better—the digestion is improved—diarrhœa is rarely a troublesome quantity—cerebral troubles are rarely present, and, to use the words of Dr. J. C. Wilson, the "classical picture of typhoid fever is no longer seen; that there remains of ordinary typhoid more than (*a*) a moderate fever; (*b*) an unimportant bronchial catarrh; (*c*) enlargement of the spleen; (*d*) the rose rash, and (*e*) infiltration of the intestinal glands. Everything else is prevented, and what might have been a severe case runs its course as a mild one, if the patients are brought under treatment sufficiently early. Exceptions to this statement occur only when complications develop at the onset."

This must not be regarded in any sense a picture which has been drawn to colorings of too bright a hue; I have observed and regarded them in my own practice. For the last four years I have constantly employed this treatment whenever the patients would allow me, and I have witnessed the results claimed by these authors.

As to the mortality which follows this treatment, I can say that nothing greater could be said in its praise than reading the results which have been attained by those who have tried it on a large scale. Prof. Wilson, of Philadelphia, treated in sixteen months 160 cases, with a loss of only 8. Dr. Wilson quotes from the reports of the Brisbain Hospital an illustration of the great value of the treatment. (Prof. Wilson in *Int. Clinics*, July, 1891)

(1) During the period from May 15, 1882, to December 31, 1886, there was treated 1,828 cases with 271 deaths. This large percentage of deaths occurred under the expectant plan—or the treatment was largely this—nothing like the Brandt method being employed. From (2) December, 1886, the cold bath treatment was regularly and systematically employed. The number of cases treated was

1,173, with a mortality of only 92." To quote Prof. Wilson's words: (3) "Under the bath treatment there was an improvement in the hospital mortality amounting almost to 50 per cent."

Relative to the brilliant results which have been attained by Continental clinicians, allow me to quote from Prof. Wood (Wood's Therapeutics, 1891, page 66): "It is stated by Wenternitz that in the French and Austrian armies the antipyretic treatment by cold has not been employed, while in the German army it is practiced more or less zealously. The mortality in the French army averages 36.9 per cent., in the Austrian 27.4, and in the German only 9.6. That this decreased mortality is due to the antipyresis seems to be established by the fact affirmed by Brandt, that in the Second German Army Corps, in which the treatment is carried out more thoroughly and systematically than in the other corps, the mortality is less then 4 per cent., and that, too, in face of the fact that in the same hospitals, from 1849 to 1856, the mortality was 26 per cent. Jurgensen states that from the year 1850 to 1861 there had been treated in the hospital at Kiel, according to the expectant method, 330 typhoid fever patients, with a mortality of 15.4 per cent; while from 1863 to 1866, during which period the antipyretic method was employed, in 160 cases the mortality was 3.1 per cent. Prof. Liebermeister has employed the cold-water treatment on a larger scale than has any other individual. At the hospital at Basel, up to the year 1865, 1,718 cases of typhoid fever were treated upon the expectant plan with a mortality of 27.3 per cent. In 1865 Dr. Liebermeister introduced the use of cold bathing in a timid, inefficient manner, and reduced the mortality, in 982 cases, to 16.2 per cent. In 1866 he began the vigorous regular employment of the method, and reduced the death-rate in 1,121 patients treated to 8.2 per cent." This will give my hearers a full estimate of the value of this treatment by those who have tried it extensively and who are most capable of judging. In my own practice, owing to great popular prejudice against cold baths, I have not been able to employ it in all my cases. Yet for the last four years I have made it my reliance whenever I was allowed to use it. In this time I have treated 60 cases with a loss of only 2 patients. Prior to the time I began its employment my mortality was like all those who depended on the expectant plan. I fully concur with Dr. Wilson that it improves the general condition of the patient,

that complications occur less often, and that the mortality is greatly lessened. The contra-indications for the use of the cold bath are very few. Extreme prostration, and those cases which, on account of extreme cardiac weakness—threatened collapse—intestinal hemorrhage, are cases in which I withhold the bath. I also have not allowed women bathed who are menstruating, though some observers do not regard this as a contra-indication. Concerning the means of employing the cold bath I must speak. A bath-tub must be brought up to the side of the bed, with enough water in it to cover the patient. The tub should be long enough to allow the patient to lie down, and a pillow should be provided for him to rest his head upon. He should be lifted into the tub, and on no account allowed to get into it himself or exert himself in any manner. He should be allowed to remain from ten to twenty minutes. The water should be from 65° to 70° F. During the bath he should be rubbed by the attendant, and given a drink of wine if he exhibits the least signs of collapse. I am in the habit of giving a drink of wine before the patient is bathed, and feel that it is a good practice. The patient should be bathed about every four hours or oftener, if the temperature rises above 101° F. I believe the regular four-hour bathing keeps down the rise of temperature, and that it is not wise to always wait for a considerable temperature elevation. His head should be wet with water of even lower temperature while he is in the bath.

STYRONE IN CHRONIC SUPPURATIONS OF THE EAR.—In the *Archives of Otology* for July, 1891, Dr. Spalding reports on the value of styrone in the obstinate cases of this affection, especially those complicated by attic-inflammation and perforation in Shrapnell's membrane. The fluid styrone, which is much less costly than the crystalline, was found efficacious, being used in alcoholic solution of two to five per cent., diluted at the moment with water or glycerin. Cleansing by syringing and mopping with cotton should, of course, precede its application, which is best made with the moistened pledget on the cotton-carrier. Boric acid insufflation may follow.—*Therapeutic Gazette.*

SUCCESSFUL TREATMENT OF MEMBRANOUS CROUP WITHOUT TRACHEOTOMY OR INTUBATION.

By JOHN B. TURNER, M.D.

(Read before the Philadelphia County Medical Society, February 10, 1892, Dr. L. K. Baldwin in the chair.)

The class of cases to which I refer are of laryngitis with fibrinous exudation and not complicated by diphtheria. My experience before February, 1891, covering a period of nine years, was to have treated medicinally 8 cases, 6 of which died, showing a mortality of 75 per cent.

The results of tracheotomy in the practice of my medical friends having been so unpromising (all the patients dying), I did not at any time see fit to have the same tried in my practice. As to intubation, my experience is small—2 cases, both dying. I condemn tracheotomy and intubation with true croup, as the same objections obtain in both, viz: that the accumulation of muco-pus in the lower part of the trachea and in the bronchi is lost sight of Paralysis of the posterior crico-arytenoid muscles, preventing dilation of the glottis in inspiration, is a symptom no doubt relieved by tracheotomy and intubation, but the other paramount elements of danger in the case, as pneumonia, capillary bronchitis, accumulation of muco-pus, feeble expiratory efforts preventing expectoration, due to general debility and exhaustion, are *unremedied.*

The treatment I have used since February, 1891, is based upon the allaying of inflammation about the site of the membrane, effecting the separation of the membrane, lessening the formation of new membrane, effectually controlling laryngeal spasm and sustaining the strength. I use asafœtida by suppositories to allay spasm and to give needed intervals of quiet, restful sleep, and consider it a valuable and much overlooked remedy in membranous croup.

For the other conditions or symptoms I used ammonium chloride given in syrupy mixture without water, as the addition of water makes it unpalatable to children.

In Wood's *Reference Handbook*, in an article written by Dr. Nickles, of Cincinnati, "Wibmer found a very decided increase of the bronchial mucus after hourly doses of 8 to 15 grains of ammonium chloride, and other careful observers noticed the same effect.

Experiments of Rossbach seem to show a different mode of action. Under the influence of the salt, the tracheal mucous membrane became anæmic and the secretion of mucus gradually ceased. The utility of ammonium chloride in catarrh of the air-passages may therefore depend upon a favorable modification of the vascularity of the mucous membrane, not merely upon a change of the quantity of the secretion." I am of the opinion that Rossbach's view is the more probable one regarding the action of ammonium chloride, and will better explain its beneficial action upon the catarrh accompanying croup

I will now give the details of the treatment pursued in my last four cases, and advocate it as one simple, humane and easily applied:

Case 1.—On February 16, 1891, I was called to see Sallie B., aged 11 months, who was suffering from a severe attack of membranous croup. The mother had lost two children on former occasions by the same disease, one in twenty-four and the other in thirty-six hours. Why croup has a predilection for certain families I am at a loss to know.

I had the child taken to the Children's Hospital, and Dr. Samuel Ashhurst confirmed the diagnosis and recommended tracheotomy, which was refused by the mother. When the child was brought from the hospital to her home I gave the following treatment:

℞.—Ammonii chloridi..... ʒ j.
Syr. tolutan..... f ʒ ij—M.
S. Half a teaspoonful every two hours.

℞.—Asafœtidæ pul..... gr. xvi.
Quininæ sulph..... gr. iv.
Codeinæ..... gr. ½.
Olei theobromæ..... gr. cxxx.—M.
Fiat suppos. no. viii.
S. One every four hours.

The child did well (the attack lasting eleven days) and recovered. The patient received whiskey and milk at regular intervals, and was kept in a well-ventilated room. By this treatment the appetite remained fairly good, and the strength was sustained. The same child had another attack on December 18, 1891, and by the same treatment was restored to health. I call this second attack Case 2.

Case 3.—John D., aged 18 months; attacked on August 26th. Same treatment, and child recovered on the eighth day. The mother poulticed this boy on chest and over trachea, of which action I approved.

Case 4.—Henry J., aged 2½ years; attacked March 6th. Disease lasted one week. Recovered by means of same treatment. This case received larger doses of the ammonium chloride mixture because of his being older than the other children.

There was no atomization used on these cases.

DISCUSSION.

Dr. Edwin Rosenthal: It seems to me extremely strange that such a disease as membranous croup should be so easily remedied by muriate of ammonium and asafœtida suppositories. In a series of some 420 odd cases which I have followed and studied, in my own practice and in the practice of my friends, which were not treated by intubation or tracheotomy, and in which the diagnosis is undoubted, but three recovered. In 64 cases that I have intubated fully one-half died. Many of these cases had been previously treated by muriate of ammonium and also by chloral, which I consider a better antispasmodic than asafœtida. Chloride of ammonia has been long used in this disease. It was recommended by Dr Condie—one of our earliest members—for membranous laryngitis, and its action, which, if I remember correctly, was to defibrinate the blood, prevent the pseudo-membrane from forming, and facilitate the absorption of tissues already formed. If Dr. Turner considers membranous croup one disease and diphtheria of the larynx another disease, he falls into error regarding treatment. If he means to say pneumonia, capillary bronchitis and œdema of the lungs, which are so often complications of croup, succumb so easily to the treatment by muriate ammonia, or that they will not occur when cases are treated in this way, I think places him also in error. I have seen so many fatal cases of croup that I cannot believe that true membranous laryngitis can be successfully treated in the manner he describes. I have practised intubation over one hundred times, and have had fairly good success. But I have not relied upon remedial measures such as have been mentioned.

Dr. M. O'Hara: The easy cure of cases supposed to need tracheotomy can bear a very different explanation. It may well be in

view of the many cases of recovery after the apparent judicial condemnation of the doctor, not depending sufficiently upon the powers of Nature.

Some years ago I reported a case and published it in the *Proceedings of the County Medical Society*, which can be referred to for details (vol. i. p. 21), entitled "Remarks on a Case in which the Necessity of Tracheotomy was Averted by the Systematic Action of Intense Cold Exciting Forcible Inspiration" This was a case in which a most eminent throat specialist considered the time gone by for success by tracheotomy, in a case of nasal diphtheria after measles, and considered it would be closed by death in eight hours, and yet recovered under use of ice, and he frankly told the mother afterward that he probably would have finished the case with the knife. Here there was an error of judgment; though all thought there was membranous deposit, there could not have been any. I have known similar cases, and, sending for a consultant surgeon in several cases, waiting brought the patient around. The late Dr. Henry A. Smith related at one of our meetings many cases of this kind in a discussion on the topic, and I hope those of us present familiar with the point will relate such cases for instruction. I rise to have this point specially ventilated.

Dr. H. R. Wharton: I agree with Dr. Turner that many cases of croup get well with the simple medicinal treatment, but I disagree with him in regard to the large number of unsuccessful results from tracheotomy and intubation. My experience with tracheotomy is that even in the most urgent cases many recover. Last year, at the Children's Ho pital, 43 per cent. of the tracheotomies recovered. I have used chloride of ammonia to some extent in the treatment croup, but in the last few years I have put more confidence in the carbonate of ammonia, and follow the plan of treatment suggested by Mr. Parker, an English surgeon. I combine the carbonate of ammonia with syrup of senega. My routine treatment in ordinary cases of croup, in which the symptoms are not sufficiently urgent to call for intubation or tracheotomy, is to place the patient on carbonate of ammonia with senega, and to see that he is thoroughly stimulated. At the same time I believe that local treatment by inhalation of some medicated vapor is of service. I have recently employed the ordinary steam atomizer, in which I use an alkaline solution, such as carbonate of soda and glycerin. The atomized

solution is used as frequently as every half-hour or hour, according to the urgency of the symptoms. This solution is also useful after intubation or tracheotomy. I believe that many cases of croup do get well if carefully treated and do not come to the point where operation is necessary. I think that the use of strychnine and digitalis in the early stages of the disease often prevents trouble later on from cardiac failure. While at times these very urgent cases will get better without operation, yet in my experience this is the exception. Within a year and a half death has occurred in five cases of croup in which I was summoned to do intubation or tracheotomy, before I could reach the patient. I think it unwise to say that in these urgent cases operation should be postponed, for many cases of croup die suddenly.

Dr. B. Trautman: We should not lose sight of the distinction between catarrhal croup and membranous croup. Most cases of catarrhal croup will get well without much treatment. By keeping the patient warm and giving an emetic, the cure will be effected. In membranous croup the tendency is to postpone operation too long, till cyanosis sets in, and then the patient generally succumbs. The course of treatment which I pursue in membranous croup is the administration in one mixture of bichloride of mercury, tincture of iron and chlorate of potassium. As an emetic I give sulphate of copper, 1 grain for each year of the child's age. That will often bring away the whole membrane. If it does not bring it away, tracheotomy or intubation should be done at once.

Dr. Nutt, of Williamsport: This subject has interested me very much. For the last eight or ten years I have done intubation frequently—I think in 17 consecutive cases—and out of that number there has been only four deaths. I am therefore a strong believer in intubation, and I had hoped that there would have been a more general discussion on this point. I fully agree as to the necessity for intubating early. When I first began the use of this measure I usually put it off until the last moment, as a last resort. When the lungs are all filled up and the child cyanotic, I do not believe anything will save the child. I cannot see that intubation has any bad effect, and if used early in the disease we can reduce the rate of mortality very greatly.

Dr. John B. Roberts: It seems to me that this is the old story, that the man who never operates is sometimes wrong, and the man

who always operates is sometimes wrong. The discussion seems to be a little uncertain because some speakers use the word croup and others the word diphtheria. Whether or not they mean the same thing, I do not know. If I am called in surgical consultation to a child with difficult respiration due to some inflammatory disease of the throat, it makes little difference to me whether some pathologists call it croup and some diphtheria. I call them all diphtheria, and advise the attending physician to report the case as diphtheria to the Board of Health. Eight or ten years ago I made up my mind that in all cases of diphtheria where there was dangerous difficulty in respiration, my duty was to advise tracheotomy, and to do it That was before the time of intubation. I did tracheotomy over and over again, and, although I never saved a patient, the relief to the patient was so great that I never regretted the operation. I believed that in all such cases, where there was dangerous cyanosis, my duty was to open the trachea. Since intubation has been revived by Dr. O'Dwyer, I have adopted that as the primary operation and reserve tracheotomy for a later procedure. To see a child suffocating to death and withhold your hand, is almost as bad as saying that you will not use the stomach-pump, even though you know that the person has poison in the stomach. Of course I do not advocate intubation or tracheotomy in cases where the child is dying from the diphtheritic poison and not from obstruction in the larynx. A few weeks ago I was called in consultation to see a child. The case had previously been seen in consultation by another gentleman, who said that nothing could be done. I was then called and introduced an intubation-tube, and in a few minutes the child was breathing comfortably. The tube was vomited out, however, but the relief which he had experienced was so great that the child permitted me to apply the tube again without struggling. He subsequently wore the tube about two days, and is now well. We must select our cases for tracheotomy and intubation, just as we select our cases for laparotomy or any other operation.

Dr. John C. DaCosta: It is not strange that such brilliant surgeons as the last speaker advocate tracheotomy. But what is the mortality? Some ten or more years ago I collected and analyzed 2,400 or 2,500 cases of tracheotomy, and the result showed that only about 24 per cent. recovered. But one reference has been made to-night to the old-fashioned method of using emetics.

Nothing will dislodge the membrane quicker in croup than an emetic. You may use ipecac or sulphate of copper, but one of the best is the yellow sulphate of mercury, which latter, I think, has more than a simple mechanical effect. In true croup there is nothing equal to the internal administration of mercury, which may be given in the form of the mild chloride, or of the bichloride or the old-fashioned blue pill. Another point is the enforcement of sustaining treatment. If quinine is used in suppositories, it should be in the form of the bimuriate or bisulphate, or the sulphate mixed with tartaric acid, so as to insure its being dissolved. Anodynes may be needed to quiet spasm.

Dr. John B. Deaver: As has already been said, each case has to be treated on its own merits. There is much to be accomplished both by tracheotomy and by intubation in cases of true croup. My experience, however, has been that in many cases the introduction of an intubation-tube occludes the larynx still further, and increases the child's suffering; in those cases I do tracheotomy. I think that these operations are better applicable to cases of croup proper, and I am not in favor of doing them where there is much depression, as occurs in true diphtheria. I cannot agree that all cases of croup die an easy death even when the tube is employed. I have seen them strangle as much after intubation or tracheotomy as before. The operation usually does give relief, but the inflammatory process may extend further down and the symptoms of obstruction may be renewed. I believe strongly in the use of mercury in these cases in order to get its constitutional effect. I use calomel and push it as far as I can, it being difficult to salivate children. The bichloride acts quicker, but it is more apt to irritate the gastro-intestinal tract. I believe that there is a difference between croup and diphtheria. I do not believe that they are one and the same disease. The one is local and the other is constitutional. This subject is a very interesting one, but I do not see how we are to instill into the minds of any the cases which should be intubated and those in which tracheotomy should be done. This question must be judged by the experience of the operator.

Dr. W. S Stewart: The Doctor did not make a distinction between the true membranous croup and what is known as spasmodic. The latter can be relieved by emetics and counter-irritants, but in true membranous croup we need something more than emetics. I

agree in regard to the use of the remedies to which reference has been made. I believe in calomel, or mercury, in other forms. I I have been to many operations for tracheotomy, and have seen some cases when the operation was performed where I believe I should have still hoped for recovery without an operation. It is hardly fair to record such cases of recovery as a result of the tracheotomy. On one occasion I went three times to one case to assist in performing tracheotomy, and every time we were refused the privilege. Death was confidently prophesied by the attending physician, but the child recovered.

On another occasion I was attending a child where I feared death was going to result, and I advised the family to call in consultation a gentleman who intubated. During the interval of sending for the doctor and his arrival the child improved; still, I asked the doctor if it was a good case. He said he regarded it as a good case for intubation. I told him to put in the tube, and turned the case over to him. On the second day the child was dead. I do not say that we should never operate or never use a tube, but I do say that those who are enthusiastic in regard to operations are often careless in their zeal to press the proper treatment. They do not pursue the medical treatment as perseveringly as they should.

Muriate of ammonia by itself is very hard on the stomachs of children, but a good combination is chloride of ammonium with chlorate of potassium and syrup of senega. I often combine with this syrup of squills, ipecac and tolu; I also administer quinine by the mouth in the form of the tannate. This method often has a very good effect in arresting the development of ordinary membranous croup, when given in large and frequent doses, and the expectorant has the effect of absorbing the membrane already formed.

Dr. G. Betton Massey: There is a therapeutic item to which I have often wanted to direct the attention of general practitioners. During the ten years that I spent in general practice I invariably prescribed insufflation of powdered sulphite of sodium in those cases of diphtheritic sore-throat with general sytemic disturbance that seemed to be the first stage of diphtheria. In all these cases the membrane disappeared in from twelve to twenty-four hours, and it was a curious fact that in these ten years I did not see a bad case of diphtheria. Whether these membranous sore-throats were of that nature, and were arrested, I am of course uncertain. The

powder was insufflated through a paper roll every half-hour, the paper being burnt after each insufflation to prevent the wrong end being subsequently used and infecting the nurse.

Dr. Daniel Longaker: The theory which best fits the facts in these cases is that most of these cases are diphtheria, and that we have either a primary laryngeal diphtheria or a secondary laryngeal diphtheria. It often happens that a child is taken with membranous laryngitis and two or three days later the membrane will appear in the fauces. Diphtheria is primarily a local disease, with, later, general manifestations. It seems to me that the local disease in the fauces is the point of invasion, and a poison is developed and absorbed with such serious effects. I do not think that any one method of treatment of croup can be maintained. Every case must be treated on its own merits. I have found the peroxide of hydrogen very efficient when used as a swab or as an atomized solution. I have used it in a number of cases in the past three or four months with satisfactory results. I do not advocate exclusive medicinal treatment, or exclusive treatment by intubation, or exclusive treatment by tracheotomy. Each method has its own field of application.

Dr. Rosenthal: I have used the peroxide of hyerogen for over a year. Of the kinds obtained in the markets—manufactured by Chas. Marchand, Rosengarten & Sons, and Merck—I find that of Merck the best. At first I used it diluted, but gradually increased my strength of solution until now I use it absolutely pure. I apply it in membranous laryngitis in the form of a spray by means of an atomizer quite copiously, and where the membranes are visible the applications are made direct with probangs of cotton; my applications are made hourly. My remedial treatment is essentially antiseptic, mercury being used fearlessly. I also use stimulation freely—as, for instance, in a child of four years I gave as much as a gill of brandy during twenty-four hours. I firmly believe that my success in the treatment of diphtheria, whether it be of the larynx, or fauces, or nose, is based on this antiseptic treatment; and in peroxide of hydrogen I think we have a most potent means of applying it. I attribute my success to it, for I believe, while diphtheria is a constitutional disease, the presence of the membrane hastens the absorption of poisons and produces septicæmia and toxæmia; and in the peroxide of hydrogen we have a cleansing agent which quickly modifies, removes, or alters these conditions of things. In

the last epidemic I have treated all forms except of the larynx, with but one death, and that one was in a rhachitic child. There is one point that I wish to place myself on record as against, and that is the indiscriminate use of emetics in membranous laryngitis; I believe it is wrong in theory, wrong in practice, death is hastened by their use, and I have yet to see one case benefited or cured by their use. I believe that diphtheria and croup are clinically the same whether the disease progresses downward. The youngest case intubated by me was four months and twenty-seven days, the oldest five years and six months; in all my cases peroxide of hydrogen was freely used.

Dr. DaCosta: I understood that the discussion was on croup, and not on diphtheria. The mode of onset, the symptoms and the results of the two diseases are entirely different. Take a few points of the differential diagnosis:

In croup the attack is more sudden, and the patient recovers more rapidly. In diphtheria the patient does not recover fully for weeks, and the attack is apt to be followed by paralysis, which we do not find in croup.

Diphtheria is contagious; croup is not. Croup is found in isolated cases; diphtheria attacks whole families.

But if we are going to talk about diphtheria, I would indorse peroxide of hydrogen. I know nothing that will clear off the membrane quicker than it will.

Dr. DeForest Willard: While there are such wide differences of opinion in regard to the pathology of these diseases, it is not strange that there should be these marked differences as to methods of treatment. Some of the speakers, perhaps, refer to one disease, while others refer to another. We all recognize that mild cases get well without much treatment, but there is another grade of cases which will die, whether treated medicinally, or by intubation, or by tracheotomy. Reliable inferences cannot be drawn from a small number of cases, and even in larger numbers we all know that we may have a hundred successive cases of recovery in a certain disease, while all of the next ten may die. This is especially true in membranous croup and diphtheria. I am confident that I have saved a good many lives by tracheotomy, but I have also lost many. Yet the comfort secured to the patient has amply repaid me, even though death has subsequently taken place.

Dr. Turner: I was led to write this paper from the fact that I knew that certain cases of spasmodic laryngitis were intubated and reported as cases of recovery from croup. The treatment which I have mentioned will decide the question whether the case is one of spasmodic croup or not. I also employ calomel, and use quinine in the form of the bisulphate in suppositories. It takes the membrane three or four days to be separated. It cannot always be removed by an emetic, but if you get rid of the spasm you give a great deal of relief. Asafœtida has not been used before in croup. I do not say that intubation and tracheotomy are of no use, but where the membrane is below the trachea and in the bronchial tubes, the case cannot be relieved by these measures. The treatment which I advocate gives to the child sleep, rest and nourishment. Take a healthy child and treat it with emetics and the other things which have been mentioned, rousing it up every hour to spray its throat, and it would take a good constitution to stand that. Croup is not a very common disease. And in my paper I have referred not to diphtheritic croup, but to membranous croup.

In regard to the employment of calomel, I will state that I employ a purgative dose in the beginning of treatment, if constipation exists, to arouse secretions, and do not use it for its supposed action to dissolve the membrane.

NATURE wages incessant war upon the investigator; he can hope to win only by unremitting endeavor to circumvent her.—*Nation.*

NEVER use sulphur externally, on the surface of the skin, where the glands are open, as it will collect in the glands and give the appearance of gun-powder on the skin.—*Shoemaker.—Progress.*

THE INTERNATIONAL PERIODICAL CONGRESS OF GYNECOLOGY AND OBSTETRICS.—This new organization will hold its initial meeting in Belgium September 14–19, 1892. Its patrons include the names of many men eminent in the special departments of the proposed Congress. Dr. F. Henrotin, 353, La Salle Ave., Chicago, is the American Secretary.

SELECTED PAPERS.

ADDRESS ON THE METHOD OF ZADIG IN MEDICINE.

By T. Lauder Brunton, M.D., D.Sc.Edin., F.R.S., LL.D.(Hon.) Aberd., F.R.C.P

We are obliged in medicine to judge of the unseen from the seen, and from the objective data which are presented to our senses, we must draw conclusions regarding the processes which are going on, or have already gone on, in the persons of our patients. We must, in fact, track symptoms which we see back to their causes. Now, this process of "tracking" appears to me to be a fundamental one in man, and one which seems really to be a remnant of the qualities possessed by our prehistoric ancestors. According to Haeckel, man runs through in his embryonic condition the history of the development of the race from a simple unicellular organism up to the human being. But even after birth, traces of simian ancestry still appear. We have all noticed that when an infant is warming its feet before a fire, the soles are not held straight forwards like those of an adult, but are turned in towards one another, and the great toes are drawn apart from the others in very much the same position as the feet of a monkey. Lately, too, Dr. Louis Robinson has shown that the arms of infants have an extraordinary power of supporting the weight of the infant's body, and in this characteristic also it resembles the monkey. Even in adult life, the position of the feet, which we notice so easily in infants, is retained by many, and we frequently find that the soles of people's boots are worn more on the outer than on the inner edge, the feet still tending to turn inwards, though only to a slight extent. The same tendency to reversion which we notice in the feet may be observed I think also in the faculties of the mind, and the keen interest in tracking game by which prehistoric man was enabled to exist still evidences itself in the intense eagerness with which boys will read in Cooper's novels about Indians following a trail, or adults will pore over narrations of Gaboriau's stories of the police on the track of a criminal. There can be little doubt, I think, that the profession of medicine is a most intensely interesting one, and I am

inclined to think that its special charm is, to some extent at least, due to the fact that it is constantly demanding the exercise of those qualities of tracking which we find in Cooper's Indian heroes. I know of no better example of the exercise of this faculty than that narrated by Voltaire in his his story of Zadig. I thought it was an original idea of my own to point out the application of this method to medicine, but I find that I am only a humble follower of Professor Huxley, who has already written upon the applications of the method of Zadig to biology and paleontology.

"Zadig was a young man who, disgusted with life, retired from Babylon to a lonely place on the banks of the Euphrates, and there studied animals and plants until he saw a thousand differences where others could see only uniformity. One day one of the queen's eunuchs, followed by a band of officials, came hastening past, and asked Zadig, 'Have you seen the queen's dog?' Zadig modestly answered, 'A bitch, I think, not a dog.' 'Quite right,' said the eunuch, and Zadig continued, 'A very small spaniel, has lately had puppies, limps with the left fore foot, and has very long ears.' 'You have seen her, then?' said the eunuch. 'No,' said Zadig; 'I have never seen her, and did not even know that the queen had a dog at all.' At the same time the finest horse in the king's stables ran away, and the chief huntsman, in seeking it, also made inquiries of Zadig, who said, 'A first-rate galloper, five feet high, small-hoofed, tail three feet and a half long; cheek-pieces of the bit are of twenty-three carat gold and the shoes silver.' 'Where is he?' cried the chief huntsman. 'I have not seen him and never heard of him before,' said Zadig. Naturally enough he was suspected of having stolen both the spaniel and the horse, was tried and condemned; but no sooner was sentence pronounced than both the missing animals were found. Zadig was then asked to explain how he knew so much about them without having seen them, and this he said was the way: He noticed one day in the sand the tracks of an animal which he easily recognized as those of a small dog. Long faint streaks on the ridges of sand between the foot-prints indicated that it was a bitch with pendent dugs, showing that she had had puppies shortly before. Other marks on the surface of the sand close to the prints of the fore feet indicated that she had very long ears, and one of the foot-prints being fainter than the others, showed that she was slightly lame. As for the horse, the marks of

his hoofs were all equidistant, showing that he was a famous galloper. In a narrow alley the dust on the trunks of the trees was disturbed at three feet and a half from the middle of the path; this showed the length of his tail, which had swept the trees as he lashed it from side to side. Branches of the trees met overhead at a height of five feet, and under them were some newly-fallen leaves, showing that the horse had brushed against them and was therefore five feet high. As to his bit, he had rubbed it against a stone which Zadig recognized as a touchstone, and his shoes had left such marks upon pebbles of another kind as showed that they were made of fine silver.

"A story very like that of Zadig is told of an old Fakir in the Syrian Desert. He was one day visited by several Arabs, who asked him whether he had seen their lost camel. "It was very tall,' said the Fakir, 'it was blind of the right eye, it had lost one of its front teeth, and it was laden on the one side with honey and on the other with corn.' 'Yes,' said the Arabs, 'that is exactly the camel; you have mentioned every point about it. Where is it?' 'I have never seen your camel,' said the Fakir. 'But, if you have not seen it,' said the Arabs, 'how can you know all about it?' 'I knew it was a very tall camel, because the tracks of its steps in the sand were further apart than those of an ordinary-sized camel. I knew it was blind of the right eye, because it had cropped the herbage only on its left side; and I knew that it had lost one of its front teeth, because in the middle of every bite that it had taken there was a small uncut part corresponding to where the tooth ought to have been. I knew that it had been loaded with honey on the one side and with corn on the other, because I saw flies buzzing round one side of the track and ants busy on the other carrying away grains of corn that had fallen from the load.'"

An admirable example of the application to medicine of this method of tracking used to be told with great gusto by my late friend, Dr. Milner Fothergill, and I regret greatly that I cannot tell it with the same power and vividness that he did.

"In the town of Leeds there once lived a quack who had received no professional instruction whatever, but was known far and wide for his wonderful cures, and especially for his power of diagnosing the diseases of patients whom he had never seen by simply examining their urine. A celebrated surgeon, Mr. X., wishing to see

his method of working, desired to be present one day, and the quack readily acceded to his request, feeling much flattered that so great a man should patronize him. Shortly after Mr. X. had taken his seat a woman came in with a bottle of urine, which she handed to the quack. He looked at her, then at the bottle, held it up between him and the light, shook it, and said: 'Your husband's?' 'Yes, sir.' 'He is a good deal older than you?' 'Yes, sir.' 'He is a tailor?' 'Yes, sir.' 'He lives at S.?' 'Yes, sir.' 'His bowels are obstinate?' 'Yes, sir.' 'Here,' he said, handing her a box of pills, 'tell him to take one of these pills every night for a week, and a big drink of cold water every morning, and he will soon be all right.' No sooner had the woman gone out than Mr. X. turned to the quack curious to know how he had made out all this. 'Well you see,' said the quack, 'she was a young woman, and looked well and strong, and I guessed the water was not hers. I saw she had a wedding ring on her finger, so I knew she was married, and I thought the chances were it was her husband's water. If he had been about the same age as she it was hardly likely that he was going to be ill either, so I guessed he was older. I knew he was a tailor, because the bottle was stopped, not with a cork, but with a bit of paper rolled up and tied round with a thread in a way that no one but a tailor could have done it. Tailors get no exercise, and consequently they are all very apt to be constipated. I was quite sure that he would be no exception to the rule, and so I gave him opening pills.' 'But how did you know she came from S.?' 'Oh, Mr. X., have you lived so long in Leeds and don't know the color of S. clay? It was the first thing I saw on her boots the moment she came in.'

Now, of late years we have got so many new methods of investigation that we are sometimes apt to forget the old habits of close observation by which this quack made out so much, and proved himself, although without any diploma, a worthy descendant of the Water Doctor, whose picture, painted by Gerard Dow, occupies such a distinguished place in the Gallery of the Louvre. Without resorting to the plan of tasting the urine, by which that Water Doctor and the brethren of his craft no doubt recognized the presence of sugar, he could learn a great deal from its simple appearance.

Some years ago, when staying in the country with a medical

friend, whose wife was boiling some eggs in the dining-room for breakfast, I said to her from the other side of the room: "You have cracked one of those eggs." She said, "I don't think I have." On taking them out of the pan, however, she found that one of them was cracked. She wondered how I knew, but the explanation was simple enough. The pan had boiled over, and the water would not have held the steam long enough to boil over unless there had been something in it to make the bubbles tenacious, and this could hardly be anything else but albumen which had escaped from a crack. In the same way, although the Water Doctor did not know about albumen, he probably recognized that the persistence of froth on the urine after shaking it was of somewhat ominous import, and that would lead him to give a guarded prognosis, just as one now adays sometimes pities an old gentleman who unconsciously proclaims his precarious tenure of life by the froth he leaves behind him in a public urinal.

The Water Doctor may even have learned to associate this frothiness with nervous symptoms such as restlessness, irritability of temper, and sudden outbursts of passion quite out of proportion to the amount of offence. I well remember an incident some fifteen years ago where an apparently causeless outburst of fury on the part of an ordinarily quiet man completely astonished all his friends, who only understood it when his subsequent illness and death showed that his sudden passion was but an indication of unsuspected disease. The steward of St. Bartholomew's Hospital, Mr. Mark Morris, a man of very keen observation, has told me that whenever a patient comes down to the office at 11 o'clock at night, and wants to be discharged there an then, they know that he is suffering from cardiac disease. Perhaps the outburst of fury in the Emperor Theodosius, which resulted in the massacre of Thessalonica, was only an indication of the disease which later on resulted in dropsy and death.

The Water Doctor would be sure to divide his frothy urines into pale and dark, and he would know that these two corresponded to quite different types. The dark urine was probably passed by an individual who was short of breath, disposed to rest, and frequently drowsy. The pale urine would be passed either by an individual who rose in the morning with his eyelids swollen and puffy, and who was probably drooping and languid during the day, or by a

person of quite a different stamp—energetic, irritable, restless, sleepless, always on the move, and driving on like a high-pressure engine. Further than that, perhaps, the Water Doctor might not go; but we know now that the dark, frothy urine has probably been by a man suffering from cardiac disease, while the pale urine is due to renal mischief; and the classical researches of Bright and others have shown us that the man with big eyelids has probably tubular nephritis, while one who drives himself and his neighbors without intermission suffers from contracting kidney. Nay more, physiological and pathological researches have taught us that the dark urine of cardiac disease is due to low tension in the arterial system in general and in the renal arteries in particular; so that the excretion of water is diminished, while the pale urine is due either to high tension in the arterial system, as in cases of gouty kidney, or to diminished power of excreting solids in chronic nephritis.

But there are other indications of disease which may sometimes be recognized without examining the water, and I was greatly astonished by a man diagnozing albuminuria from the photograph of a patient although there was no swelling whatever visible in the face. On inquiry afterwards I learned that the diagnosis was made from the glistening of the eye. A tendency to œdema had caused reflection of light along the sclerotic, and this caused the eye to appear more brilliant than usual. A similar glistening of the eye we get as an effect of the emotion of compassion, in which the increased secretion of tears moistens the eyeball more than usual. An entirely different effect is produced by the emotion of anger, where the eye does not glisten but glitters, or by great grief, which renders the eyeball dull and lustreless. If we try to follow these appearances back to their physiological cause, we may find our attempt helped by considering a typical lack-lustre eye, such as that of a dead codfish. We see at once that the eyeball here is flaccid and its surface perhaps indented, instead of being tense, as it ought to be, and its surface smooth. We may imitate this condition very readily upon a child's India-rubber balloon. If we let the air out it at once becomes limp. If we blow it out it begins to shine, and the tighter we blow it the more does it reflect the light. The tension in the eyeball under ordinary conditions has a relation to the tension of the blood, and the bright eye indicates the stout heart which may win the fair lady; while the lack lustre eye is associated

with a feeble circulation, which frequently has its origin in the depressing emotions of sorrow or fear. The glittering which occurs in anger is, I think, part of the same physiological process by which the face in great anger becomes pale, and the blood concentrated in the internal organs, ready to supply force to the muscles in a sudden attack upon the enemy. It has always seemed to me that Orchardson's wonderful picture of Voltaire complaining of the insult that had been offered to him would have been rendered still finer by a very minute touch of white upon the eyeball to indicate the glitter of anger. The bright eye of consumption is familiar to us all; the high temperature, so common in the disease, tending to make the circulation more than usually rapid, the intellect often more keen, and the hopes more bright than in health, though the face may be emaciated and the body reduced almost to a skeleton. But if we find in a thin person a languid instead of a bright eye, we are led to look for the cause of the patient's leanness rather in want of food than in rapid combustion, and not infrequently, if inquiry teaches us that the patient is able to obtain food, we may diagnose either that he cannot eat or cannot digest.—*Brit. Med. Jour.*

PERKINISM.—Dr. Billings, Surgeon U. S. Army, has given a series of very interesting lectures upon the "History of Medicine." He gave an entertaining account one evening of "Perkinism," one of the fads of a century ago, which made great commotion in medical circles. Elisha Perkins, the originator, presented to the profession and the world at large the great benefit that could be derived from a pair of tractors, or "pullers-out of disease." These consisted of two pieces of metal, one brass, another steel, four or five inches long. They were held together like a pair of compasses, and the two points drawn lightly over the affected part. It was about the time of the experiments of Galvani, and it was claimed that their effect was produced by electricity. The cost of the tractors was 12 cts., and were sold by Perkins for $25. Such credit did the subject receive that a number of hospitals were founded for the treatment of cases by this wonderful method. A Perkinian institute in England published a report of 5,000 cases, and the Archbishop of Canterbury was implored to compose a new prayer that no evil powers might be allowed to impede the workings of the magic tractors. Perkinism goes on the shelf in the history of medicine with the King's Evil, Bishop Berkeley's Tar-water, the magic of the Egyptians, the charms of the Indian enchanters, and the numerous humbugs of the present day.—*Cin. Lancet-Clinic.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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GEO. GILLETT THOMAS, M. D., " } Editors.

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THE PERPLEXITIES OF HONEST MEN IN THE PROFESSIONS OF PHARMACY AND MEDICINE IN REGARD TO "BLIND PREPARATIONS."

We cannot refrain from alluding to an old topic again, because of its increasing interest.

The attitude of the medical profession to the chemist and pharmacist of to-day is an anomalous one, which has been increasing in perplexity year by year, until the day when there will have to be a protocol between the two professions with a view to the settlement of the difficulties is not far distant.

Every new article, pharmaceutical or chemical, is now patented

and copyrighted, or protected by some bewildering or misleading name, by a class of chemists and pharmacists who a few years ago would have disdained such a course as much as Jenner would to have made vaccination a secret process.

Here are only a few examples of the kind: Two chemists, one the chief, the other his assistant, discover in the laboratory a sweet principle entirely different from the sugars or glycerine, named it saccharine. It was raised from the position of a chemical curiosity to that of a medicinal agent, principally as a substitute for sugar for diabetics. The assistant goes to Germany, secures a patent on saccharine, ignoring the interests of his chief, and pursues the manufacture of it as a commercial enterprise. Everyone using saccharine, then, is using a proprietary chemical, and paying a royalty.

Take the case, also, of chloroform, to which we called the attention of our readers before. We believe that the great bulk of chloroform consumed in this country at present is wholly, or in part, produced by a patented method, and no one could compete, either in purity or in price, who holds on to the old processes.

That independent fortunes have been made by advertising diligently and expertly, keeps a vast army of eager seekers after gold alert to the chances that may lead them up into the happy road to good luck. The boldness of some of these men is very great. They set about at once to dupe the medical profession, knowing that in proportion to the credulity of the doctors will depend the sales of the vaunted new discovery. Many of them are able to come with arguments and demonstrations that are all-but incontrovertible, for some of these eager hunters for gold are men of learning or experience, broken down by former unfortunate ventures, or unwilling to wait the slow process, which, when patiently pursued, lead only to a moderate competency. They know another very important thing, that there is a code of ethics acknowledged by educated physicians, and some kind of artful reasoning must be used to silence the consciences of those who are faithful to their obligations – this class being far the majority—and to this he applies his talents too often with success. Many are the trials of faith the medical editor has to suffer at the hands of some of these sharpers, when he is called to discriminate between the manufacturer who is

honestly working to supply the needs of the physician, or dishonestly trying to palm off a worthless article.

One would think that the conferences of the Committee of Revision of the Pharmacopœia of the United States would be a good point from which to originate a plan that would settle all the difficulties, but so far the Committee has been able to see no other way than to accept "the Code" and abide by it. In the meantime good and loyal physicians are trying remedies about which they can only learn that it belongs to a certain "chemical series," an intimation practically as mystical as naming it an active principle of some plant of which he never before heard. The profession has already had a practical illustration of this in that therapeutical farce, the rise and fall of "gleditschine," and it will be at the expensive burial of many other abortions, until the true men of both professions clarify the atmosphere.

It is largely a deficiency of education in certain elements of materia medica, pharmacy and chemistry that makes the profession such an easy prey to pharmaceutical charlatans, and it is almost entirely due to the strictly honest work of a few manufacturing chemists and pharmacists that the medical profession has such a list of choice medicaments to enrich our armamentarium.

Our present standards need revision: doctors cannot be their own druggists without neglecting duties that appertain more essentially to their profession, but this would be a far better solution of the difficulty than to submit to being taught therapeutics and materia medica by every dealer who has the money to advertise and keep a smart drummer on the road.

EXPERT TESTIMONY.

Professional partisanship would be a better term to designate many of the cases of so-called expert testimony which come to public attention occasionally. We believe the time is fast approaching when there will be reformation in the practices of the courts as regards experts, and nothing is hastening it faster than the surprising and inconsistent attitude of so-called experts themselves. What kind of a witness would one expect to get if he had to pay

him in advance? Would he not be expected to testify in accordance with the wishes of the person who furnished the money? And if it came out in the examination that this witness had been paid in advance, would not his testimony be rejected? In the interest of good morals, then, would it not be equally proper for the court to invalidate the testimony of an expert who in advance had stated his price? For who is it that settles the fact of expertism? Is it the court, or the lawyer, or the expert himself? Who is authorized to say that any one is an expert? In fact, is not this the faultiest part of all the practice of courts that there is no standard fixed upon by which a man can be adjudged an expert? A physician may be an excellent practitioner, and to all intents and purposes serving a community with skill in his rounds as a family physician, could pass the Board of Medical Examiners, and yet would not be an expert in a poisoning case, in the strict sense of the word. He would tell you that he had been instructed in all the matters of toxicology, might say he had had an experience and in that time had not treated a case of arsenic poisoning. He might not be able to answer the questions of a lawyer who had been sitting up all night cramming a Medical Jurisprudence, but knew more than judge, jury and bar combined about the subject, and not be an expert.

All this makes it easy for contending lawyers to array two sets of physicians, they wishing, many times, for no better result than to confuse the jury by showing that even experts do not know about the difficult questions they have propounded, and the doctors themselves are belittled and actually lose influence in matters about which they are entitled to respect and confidence. The moral we wish to enforce is—let us beware how we allow lawyers to beguile us into the attitude of experts, and let us as physicians wait until the law is so framed as to remove the stigma of "paid witness" from those who are entitled to serve as experts before we go with alacrity into courts.

While not exactly in the same train of thought, we think it appropriate to give in this connection an extract from *The Nation* that we may have a view of expert testimony from a non-medical standpoint:

"We hope that those physicians who are sticklers for the fine points of medical ethics have not failed to notice the harm done

their profession by some of the expert medical testimony in the attempt to determine the sanity of E. M. Field. The extraordinary fact was brought out that one expert of high standing had at first given it as his written opinion that the man was insane—for which opinion, based though it was mostly upon the representations of others, he had been paid $250, and then had come into court to testify that he thought Field sane. Now, there was no particular discredit in his having changed his mind, except as it showed him to have been hasty and careless in reaching his first decision, but does not every one see how his taking an exorbitant fee for a medical service, simply because it was to have a legal effect, and then being compelled to admit that the service was really worth nothing whatever, brings the profession into disrepute? Such things would not be of so frequent occurrence did the medical associations make a rule, as they should, that only an ordinary charge should be made for expert testimony in legal trials. If a physician were to get for his time in court no more than he would get for the same time passed in his office or making his rounds, the ground for the increasing popular cynicism in regard to the honesty of medical experts would be cut away. Medical ethics is mostly confined to such questions as that of a doctor's advertising himself, or that of his committing the great crime of helping save life in company with a physician of another 'school'; we think its sphere might profitably be extended so as to cover some of the evils of the system of expert testimony."

MODERN MEDICAMENTS.—Before us is the latest list, just issued, of the extensive line of standard and pharmaceutical preparations, and modern medicaments manufactured by Parke, Davis & Co. A novel and attractive feature of their comprehensive and well arranged list is the representation, by 40 engravings, of the home laboratories at Detroit and the branches at New York, Kansas City and Walkerville, Ontario. These engravings comprise views of the exterior and interior of the laboratories and offices and sections of departments at Detroit. The cover is engraved, and altogether it is the most complete list ever published of the products of this well known house, and will be welcomed by their friends. To physicians interested a copy of this list will be mailed on request.

REVIEWS AND BOOK NOTICES.

A Manual of Operative Surgery. By Frederick Treves, F.R.C.S. Vol. I. Philadelphia: Lea Brothers & Co., 1892.

A work on operative surgery is no new thing in medical literature, but one with the great merits of this is worth a thorough examination. It consists of two large volumes of over 700 pages each, beautifully printed and illustrated sufficiently with clear cuts, many of which are original.

Full of wisdom is the first chapter on general principles which treats of the constitution of the patient as it affects the result in an operation. Beginning with a quotation from Sir James Paget as a text: "Never decide upon an operation, even of a trivial kind, without first examining the patient as to risks of his life. You should examine him with at least as much care as you would for life insurance. It is surely at least as important that a man should not die, or suffer serious damage, after an operation, as that his life should be safely insured for a few hundred pounds." With this as a text we get an admirable set of rules for the avoidance of avoidable risks.

As to the operator himself, we quote from the author: "The surest sense of confidence rests with the operator, who knows accurately what he intends to do and how to do it. The least success follows the hand of the man who retains throughout an operation a speculative spirit, who depends largely upon his imagination for conditions, and upon fortune of events for results. A shakiness of the hand may be some bar to the success of an operation, but he of a shaky mind is hopeless. In the handling of a sharp instrument in connection with the human body a confusion of the intellect is worse than chorea." And so throughout the whole of the instructions as to the general principles, the operating room, the instruments and general accessories the details are explicit.

The administration and selection of anesthetics in part 2 will attract the early attention of the reader, for there are many who have to do surgery that are not quite certain about anesthetics. This section was specially written by Frederick William Hewitt A.M., M.D., anesthetist at the London Hospital. We will extract

a few thoughts here and there: "With ether it is possible, almost with impunity, to pass beyond the realm of reflex action, and to keep up an unnecessarily deep narcosis: but with chloroform this is not the case, an overdose being likely, with but little warning, to set up the most alarming symptoms."

Of mixed anesthetics he says of nitrous oxide and ether: "This is the most valuable combination of anesthetics with which we are acquainted. It is valuable because the anesthesia of nitrous oxide may be prolonged by adding ether vapor when the patient has become unconscious from the gas; and also because, by giving nitrous oxide before ether, the former agent prevents all unpleasant initial effects which would be produced by the latter." This is not a mixture employed, to our knowledge, in this country, and these favorable expressions ought to lead to a trial of it.

He warns against any but the most cautious use of chloroform after the administration of morphine. May be the old custom of employing these two drugs needs a revision by some of our surgeons.

As regards the dangers under anesthesia, especially as to chloroform: "The administrator should accustom himself to observe the pulse as frequently as is practicable, and this is more especially necessary with chloroform. * * * Those who recommend that no attention should be directed to the pulse, but that the respiration only should be watched, are not so likely to obtain early indications of approaching danger as those who keep a sharp look-out for changes in the character of the pulse."

In the short preliminary history of the *ligature of arteries* a fact is brought out that constantly surprises us, that Celsus, who flourished in the first century, advised the ligation of arteries on each side of the wound, and then divided between the ligatures. It was in 1564 that Paré applied the ligature for the arrest of hæmorrhage; but a century after the English surgeon, Wiseman, recommended the use of a "royal" styptic, or the cautery, in the place of the ligature; and in 1761, in England, the ligature required specially advocacy, from Sharp, because "it was not as yet universally practiced among surgeons residing in the more distant counties." The general directions for the ligation of arteries and the ligation of special arteries is set forth with due precision, with sufficient illustrations, and with many practical hints.

Nerve-stretching and operations upon the nerves in general complete Part 4 of the volume, and in Part 5 are considered *Amputations*, a most important division of the subject, and one that will be consulted very frequently by readers. After a most interesting history of amputation, there follow chapters on the amputation stump, describing a good stump and a bad stump, and all the details of instruction to help the surgeon to the best results. One practical point he matter out which we note passing, among a multitude of other good things about the Esmarch bandage substitute for a tourniquet. It is a great convenience to the nervous operator, but its advantages to the patient are not so clear. The objections are that, if pressure be maintained for more than a quite short time, some temporary paralysis of the vaso-motor nerves of the part follows, with the result that, when the tourniquet is removed, an unusual amount of oozing occurs from the still dilated vessels. Oozing usually involves much sponging, rubbing and washing of the raw surface, the possible application of some styptic solution, and the expenditure of not a little time. Besides this, there arises a necessity for double or triple the number of ligatures commonly employed.

It must not be understood that this work consists of minor surgery, except the special surgery of the eye and ear.

Operations upon the abdomen, under which are treated all of the modern operations of abdominal section, ovariotomy, oophorectomy, hysterectomy, suture of the intestine, resection of the intestine, intestinal anatamosis, enterotomy, colotomy, intestinal obstruction, operations on the stomach, gastro-enterotomy, operations for hydatids of the liver, operations for hepatic abscess, nephrectomy, herniotomy, supra-pubic cystotomy, etc., etc.

The author is not disposed to believe that the future history of abdominal surgery will be associated with the names of McDowell, Nathan Smith, Atlee, Charles Clay, but with Sir Spencer Wells and Sir Joseph Lister, ignoring, too, the brilliant part his own countryman, Lawson Tait, has taken in making it a practical operation. Future historians will surely not be so derelict.

General practitioners who have also to be surgeons will consult this work with great satisfaction. Every necessary detail, a large choice of operations, practical directions, the outflow of the abundant resources of an experienced operator, which we learn on every

page, all tend to make the work of the greatest value to practical men. As this work is in time tested by those who are preparing for an operation, we believe it will grow in favor and prove almost indispensable.

PRACTICAL TREATISE ON ELECTRICITY IN GYNÆCOLOGY. By EGBERT H. GRANDIN, M.D., Chairman Section on Obstetrics and Gynæcology, New York Academy of Medicine; and JOSEPH H. GUNNING, M.D. Illustrated. Octavo, 180 pages. Muslin, $2.00. New York: William Wood & Company.

The title gives a very good idea of what the reader of this book will find between the covers. The six chapters are devoted to General Considerations and Description of Apparatus; Routine Use of Electricity; Electrolysis; Static, Frahklinic, or Frictional Electricity; The Treatment of Malignant Growths by the Galvano Cautery; Electricity in Obstetrics.

It is the aim of the authors to present, as far as possible, "an unbiassed estimate of electricity" in the treatment of diseases of women; and in the second chapter, in speaking of its application in displacements of the uterus, they say "these prefatory remarks have seemed essential because, in their enthusiasm, certain gentlemen have claimed for electricity virtues which it does not possess. Electricity is no cure all. It is useful within certain limits, and no further."

It is such conservative statements as will be found in this work, together with the many valuable hints on apparatus and application, that will enable the general profession to avoid disappointment in their trials of this valuable therapeutic agent, for valuable it must be if used in properly selected cases and in proper manner.

R. D. J.

THE PHYSICIANS HAND-BOOK FOR 1892. By ALBERT D. ELMER, G. P. Putnam's Sons, New York, 1892.

This is a stout morocco bound book, with flaps 4x6¼ inches, 327 pages, red edges, handsomely prepared as a visiting list and daily record of patients. It has ample tables of doses of new remedies, weights and measures, calendars, directions for examination of urine, directions for the correct writing of prescriptions, and many very useful things to freshen the memory of the busy doctor and

serve as an immediate pocket reference book. The usefulness of such a book is undoubted, and this seems to be one of the best, its size being its chief objection.

PTOMAÏNES, LEUCOMAÏNES AND BACTERIAL PROTEIDS: or the Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHN, Ph.D., M.D., and FREDERICK G. NOVY, Sc D., M D. Philadelphia, Pa., 1891.

A comparison of this edition with the one of 1888 shows how thorough the revision has been, and no wonder, for no subject in the science has expanded with such rapidity, except bacteriology, and this has kept apace with it, and rivaling at every step that study. It is well that there are institutions of learning like the Michigan University, where such men as Vaughan, with all the vigor of prime manhood, with clear heads and good training, may pursue studies for the advancement of science.

This edition has been augmented by 75 pages, and is really the authority on the subjects it treats.

BOTANY: A Concise Manual for Students of Medicine and Science, By ALEXANDER JOHNSON, F.G.S.; with 164 illustrations and a series of floral diagrams. New York: D. Appleton & Co., 1891.

This is not an elementary botany for beginners, but is intended to aid the advanced student of the science in making the best use of lectures. It follows closely the curriculum of the Edinburgh University, but is well adapted to any course. The printing and illustrations are beautifully done. Botany is not now taught in any of the American medical colleges, or if it is, it is only an optional course, and American students ignore it entirely. The amount of good training and helps to the thorough understanding of vegetable physiology he loses by thus ignoring botany he will only estimate when in later years he detects his deficiency.

MANUAL OF PHYSICAL DIAGNOSIS FOR THE USE OF STUDENTS AND PHYSICIANS. By JAMES TYSON, M.D. J. B. Lippincott & Co. [Price $1.25.]

This is a concise manual of physical diagnosis, prepared primarily to aid the classes of the author in the study of this essential branch. It has the merit of being clear, and shorn of all extrane-

ous matter, no small merit in the eye of the medical student, and a difficult piece of work for any author to accomplish.

THE PHYSICIAN AS A BUSINESS MAN: or How to Obtain the Best Financial Results in the Practice of Medicine By J. J. TAYLOR, M.D. Philadelphia: *The Medical World*, 1891.

This little book has a good deal of excellent advice, which, if followed, would help to make a doctor a careful business man. Young men are not inclined to read such books, and the older men are too set in their ways to be influenced by them.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES: A Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by CHARLES E. SAJOUS, M.D., and Seventy Associate Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps, Five Volumes, 1891. F. A. Davis, Publisher, Philadelphia, 1891.

Full subscription lists have greeted the solicitors for these wherever they have gone with this work, which is a better measure of its merit than any anything that might be said for or against these sumptuous volumes.

What an army of editors and sub-editors, thrashing and winnowing as best they may all the crops of all the world, finding much to winnow, but in the aggregate a large mass to put down as truth until more truth can be had, and much of this golden-looking grain so carefully garnered will prove to be "cheat." But for all this the seed-time and the harvest go regularly along, and the gain is perceptible, if it is not in exact ratio to the volumes printed. But what for the editors who cull the vast harvest! Why, if there is no other result, this immense labor in pondering upon the harvest, and extracting the best of it, is educating these laborers for the future, so that the literary spirit of the day is kept active and the future supply of writers is assured.

We believe that these volumes will still further have to be reduced and the material more concentrated. It is impossible to avoid some repetition from one year to another, as the work of one year depends so much upon what was done the year before, but more experience will at last enable the editor and his assistants to crystalize their material still more clearly.

PLAN ADOPTED BY THE BOARD OF MEDICAL EXAMINERS OF NORTH CAROLINA IN CONDUCTING CLINICAL EXAMINATIONS.

In accordance with the resolution adopted by the Board of Medical Examiners of the State of North Carolina, at its session in Asheville, May 27th, 1891, to wit: "That this Board hereby agrees in the examinations of 1893 that it will introduce a clinical feature in the examinations on Practice of Medicine and Surgery. Such examinations shall be conducted on a plan to be made and submitted at a subsequent meeting, and a committee of two shall be appointed to formulate and submit such plans as will put this new feature into operation," it is hereby ordered that the following shall be the rules and regulations for the clinical examinations above specified, to be in force until amended:

1. Each applicant for license shall file with the Secretary at the time of his registration a certificate from the medical school from which he is graduated, or may have attended, that he has had clinical teaching, personally examining and prescribing for patients, and has been instructed in the use of splints and bandages and such other surgical appliances as are most frequently used, and has had opportunity to examine and diagnose dislocations and fractures.

2. If the applicant has not graduated, or has no certificate, then he shall exhibit to the Secretary, from two or more reputable registered physicians, a certificate that he has been in active practice one or more years, and has had charge of, or practiced in the management of, at least two cases of labor; and such certificate shall be attested by the Clerk of the Superior Court of the county in which such physician lives, or by a Notary Public.

3. On the second day of each session of the Board the Secretary shall, by lot, assign eight or more of the class, as the Board shall direct, to the clinical work, and the Board shall designate which of the Examiners shall conduct the examinations.

4. These examinations shall stand in lieu of the written examinations on the Practice of Medicine and Surgery; and the standard shall be the same as for the written work.

5. If any applicant shall not be well instructed in clinical work, and shall fail to give evidence of his proficiency in such instruction to the Board, he shall not receive a license.

6. It shall be the duty of the Secretary to correspond with the members of the State Medical Society in the towns chosen for the meetings, and by their assistance have ready for each year a sufficient supply of clinical material for the work indicated by these regulations.

THE ACTION OF CACTUS GRANDIFLORUS.—A recent physiological and therapeutic study of this new predicament has been published by Edouard Boinet and Jules Boy-Teissier (*Bulletin Général de Therapentique*, October, 1891). They find that *cactina*, the alkaloid of the plant, is but little poisonous. It increases the energy of the cardiac systole, exhibiting all the characters of a heart tonic. In doses of two milligrammes, the drug did not diminish the number of cardiac beats in the case of the frog, nor did it produce any alterations in the movements or the sensibility of the batrachian. For therapeutic purposes the authors employed extracts and tinctures of the plant, especially Adrian's tincture, and the results obtained, in the treatment of cardiac disease, have been more or less satisfactory. In summing up their conclusions, Boinet and Boy-Teissier found: (1) That ten minutes after the first injection, in the case of the frog, the cardiac energy was increased; (2) that this effect was transitory; (3) that it was only maintained under the influence of new doses; (4) that in large amounts the remedy diminished the cardiac pulsations, this being accompanied, at a later period, by irregular contractions of the heart; (5) that cactina increased markedly the force of the heart without producing, as does the extract, a diminution of the pulse-rate; (6) that the tincture, in doses of forty-drops, has no therapeutic effect; (7) that in asystolic cardiac affections the tincture, in the same quantities, was similarly without any appreciable effect; (8) that in true cardiac disease, in which there was a latent want of proper compensation, daily doses of 80 to 100 drops raised the energy of a failing heart; (9) that in secondary cardiac symptoms, in arythmic conditions of nervous origin, daily doses of 80, 100 and 120 drops were well borne, and generally produced a regularity of the pulse; (10) that even with these large amounts, used for a considerable length of time, no untoward after-effects were observed in patients, nor any evidence of a cumulative action.—*Univ. Med. Mag.—Bul. of Pharmacy.*

CORRESPONDENCE.

DOES THE USE OF THE CURETTE EVER CAUSE RETAINED PLACENTA.

Messrs. Editors North Carolina Medical Journal:

DEAR SIRS:—I have, within the last twelve months, had in my practice three cases of retained placenta, and I have reason to believe that the curette was the cause of the trouble.

Case 1.—A negro woman, æt 35, mother of several children, never had any difficulty with the placenta before. She suffered from hæmorrhage (menorrhagia), and the uterus was curetted some two years before the birth of her last child. I saw her several hours after the delivery of the child and found the placenta firmly adherent, every means was used to remove it, but without avail, and the patient died a few days later from exhaustion.

Case 2.—White woman, æt 40, mother of four children, placenta always came away without any trouble. She had an abortion two years ago and she was troubled with metrorrhagia for some months afterward, and the curette used for her relief. In November, 1891, she was delivered of a child. I saw her several days afterward and found her suffering from septicæmia as a result of a retained placenta, which was removed with great difficulty.

Case 3.—Woman (white), mother of two children, placenta came away without any difficulty in her first two confinements. Her uterus was curetted for hæmorrhage, and a few months afterward she became pregnant, the child was delivered at 10 o'clock at night, and the placenta, or a portion of it, some three hours afterward.

I wish to state that every means was used to detach the placenta in the cases mentioned above, both by the attending physicians and myself.

Sometimes after an abortion it becomes necessary to use the curette for hæmorrhage resulting from retained portions of the ovum. In order for the operation to prove successful the entire uterine mucus membrane must be thoroughly scraped and all granulations and fungus growths removed. In order to detach these growths considerable force must necessarily be used, and the sharp

curette must be the instrument. After using the sharp curette, in my opinion, the interior of the uterus is left as a rough, raw-like surface, secreting mucus and perhaps pus, and the surrounding parenchyma becomes corrugated and thickened, and when the parts heal a number of scars are left on the interior of the womb which becomes a very poor surface for the placenta to become attached, should the woman even become pregnant.

I simply report these cases, hoping thereby to call out the profession on this subject, and I hope if any physician has had cases similar to my own that he will report them through the columns of this JOURNAL.

Yours, very respectfully,

J. O. WALKER, M.D., Randleman, N. C.

CURRENT LITERATURE.

INTESTINAL DYSPEPSIA.

There is a form of dyspepsia which is predominantly intestinal. Chymification may be normally performed in the stomach (as is shown by the syphon), but the work of the stomach is not properly supplemented by those processes in the small intestines which elaborate the chyle and render it fit for absorption. Every physician in general practice has had cases which correspond to the following description: The patient has little or no trouble with the primary or gastric digestion, but some few hours after meals has attacks of flatulence with abdominal pains of greater or less severity, and this may be followed by diarrhœa.

Eructations of gas and the expulsion of flatus do not necessarily indicate faulty intestinal digestion, for the trouble may be purely of gastric origin (type—gastric dilatation, gastric neurasthenia), and it sometimes requires the utmost sagacity of the physician to determine in a given case the parts to be assigned respectively to gastric and intestinal indigestion. Often the flatulent distention can be topographically located in coils of the small intestine or in

the colon, while the stomach appears to be empty, or, at least, not distended. Gastrectasis can be differentiated by symptoms of its own; and always the use of the stomach syphon is an aid to accurate diagnosis by the certain information which it furnishes as to the quality of the gastric contents.

A peculiarity of intestinal dyspepsia is that it is principally the starchy and saccharine articles of food that give trouble. This might *a priori* be inferred, for the peptonization of albuminods is effected chiefly in the stomach, which, in the kind of dyspepsia under consideration, is supposed to be in a relatively normal condition. While, then, it is quite possible that the ingestion of an excess of albuminoids, over fatiguing the stomach, may cause intestinal embarrassment (and it is also possible that in rare instances exaggeration of the ordinary peristaltic movements may effect the same result, the ingesta being hurried out of the stomach before the work of chymifaction is half completed) and for all practical purposes the name intestinal dyspepsia may be considered as synonymous with starchy or amylaceous dyspepsia.

Is there a "buccal" or "salivary," due to lack of saliva? The relative part to be assigned to saliva in the conversion of starches has not yet been determined; it is doubtless insignificant as compared with that of the intestinal and pancreatic secretions.

The bile, pancreatic juice and the intestinal juice are the influential factors of intestinal digestion. Deficiency or perversion of any one of these fluids may cause indigestion, and it is possible that atony of the intestinal muscle—as a part of general muscular atony—may in some instances have an important rôle in indigestion.

The influence of bile on the intestinal digestion has long been known. Constipation and flatulence generally accompany deficiency or absence of bile; the rapid emaciation that is seen in the individuals or animals with biliary fistula also confirms the traditional physiological notion that the bile is an important agent in the emulsification of fats. Functional or organic derangements of the liver, then, may cause intestinal indigestion.

Deficiency or perversion of the pancreatic secretion will seriously derange chylification. The pancreatic juice possesses ferments which act on all the elements of food; albuminoids, carbo-hydrates and fats; the intestinal jtices also transform starches and proteids. These are facts which are sufficiently trite; unfortunately it is

difficult, if not often impossible in a given case of dyspepsia, whose seat has been referred to the small intestines, to determine to which of the three factors of the intestinal digestive process the cause belogs, or whether all the glandular secretions may not be about equally at fault. There are, it is true, some symptoms which point clearly enough to intestinal atony by acholia; we have, however, no symptoms which indicate with equal clearness failure function of the intestinal glands or pancreas. But even if we knew the morbid states productive of the digestive disturbances, we should seldom be able to influence these states directly by remedies; in other words, therapeutics must be symptomatic rather than etiological.

The brief hints which we shall give as to treatment will be comprised under the following heads: (1) Dietetics; (2) antiseptics; (3) eupeptic remedies; (4) purgatives.

(1) As this form of dyspepsia is generally predominantly a dyspepsia of starches, there is a leading indication to abstain from amylaceous and saccharine articles of diet. There should be a maximum of albuminoids—meat, eggs, fish and a minimum of carbo-hydrates and fats. Brilliant results have been obtained from a diet of raw meat—six, eight, even ten ounces of lean beef or mutton reduced to a pulp and cooked but slightly, if at all; to be eaten well seasoned, with a little bread, but without vegetables. Thin slices of underdone roast meat, fresh broiled fish, raw oysters and other shell-fish, soft boiled eggs, boiled ham. The latter, with sour-kraut, smoked herring, a little stale cheese, etc., has been recommended as being especially unlikely to undergo putrefactive decomposition.

There is no doubt that patients who have been the greatest sufferers from flatulence and colic, the result of intestinal indigestion, have often been marvellously benefited by this meat *régime*. For drinks, dilute soups, broths, watery solutions of the popular meat-extracts, are always preferable to milk, which is too liable to fermentation. Ales and all other fermented liquids are of course to be eschewed. The same may be said of puddings and gruels. If milk is to be proscribed, milk curds (without sugar) are not always objectionable.

Chronic indigestion is generally the result of flagrant dietetic errors. The individual has at some time indulged his appetite to

excess, and done this habitually; the digestive organs have become overburdened and functional derangements, if not gross organic lesions have resulted. Or food of a poor quality and indigestible, has overtaxed the apparatus of digestion. Here the main treatment must still be dietetic—the only indication capable of fulfilment being to give rest to the damaged organs till *restitutio ad integrum* takes place. The patient must be compelled to live sparingly, and on the kinds of food (principally azotized) which will digest best, and give the least trouble.

(2) There is no doubt as to the utility of antiseptic remedies (that is, remedies which prevent and counteract morbid fermentations) in intestinal dyspepsia. Combinations of chalk, bismuth, magnesia, salol, salicylate of soda, aromatics, are often beneficial. The patient may take after each meal a powder consisting of 5 grs. each of prepared chalk, magnesia and salol, or 5 grains each of salicylate of bismuth and naphthol. The addition to these powders of a little powdered nux vomica or columbo is often beneficial, especially where there is an indication to stimulate sluggish contractility. Turpentine is a remedy which some think has quite a wide range of usefulness.

Are there ever instances where exaggerated peristaltic movements are the principal cause, the ingesta being hurried out of the stomach into the intestines before gastric peptonization is half completed? If such cases could be diagnosticated there would be a clear indication for opiates and other remedies which diminish peristalsis.

(3) Among the "eupeptic" remedies (that is, remedies which favor digestion), must be mentioned, as being of predominant importance in the dyspepsia under consideration, malt-extracts contain diastase and are believed to be of benefit in amylaceous dyspepsia; this belief seems to be sanctioned by clinical experience. To be efficacious they should be given with the food.

Pancreatin, or pancreatic extract, has the earnest commendation of Dr. William Roberts in the *British Medical Journal.* He directs the usual dose (a teaspoonful of the extract, or 10 to 15 grains of purified pancreatin), to be given with 15 grains of bicarbonate of soda two hours after a meal, when intestinal digestion might be supposed to have fairly begun. Gubler recommended pancreatin to be given in capsules of wax, with the expectation that they would pass through the stomach unattacked by the

gastric juice and deposit their contents in the duodenum after the destruction of the waxy coating. There are various pharmaceutical preparations which profess to contain the three terments, diastaste, pepsin and pancreatin. Some physicians claim to have derived benefit from these combinations; others look upon the pretensions of their proprietors as illusory. These substances, being ferments, easily spoil, nor is their stability always ensured by combining them with alcohol, which more or less modifies their properties.

(4) The utility of purgatives in clearing the intestines of putrefying *débris*, of gases, ptomaïnes and microbes is unquestioned, but they are not to be given as a matter of routine, and only when constipation, colic or other symptoms indicate their administration. The relief which often follows a mild cathartic is great. Of course only the milder laxatives, and such as disturb digestion the least, are to be thought of. Rhubarb, senna, aloes, sulphur, cascara, magnesia, are among the best. A favorite combination is equal parts of pulverized rhubarb and cardamon seeds; dose, a teaspoonful. Germain Sée prefers the old formula of sulphur, cream of tartar and magnesia, of equal parts; Dujardin-Beaumetz, the compound licorice powder. The aloin, strychnia, belladonna and ipecac pill is an excellent one.

"The remedy," says Dr. G. B. Wood, "which we have found most effectual in the permanent cure of a disposition to the accumulation of flatus in the bowels, is an infusion made with half an ounce of columbo, half an ounce of ginger, a drachm of senna and a point of boiling water, and given in the dose of a wineglassful three times a day.—*Editorial in Boston Medical and Surgical Journal.*

TREATMENT OF SUPPURATING INGUINAL GLANDS.

The surgeon frequently meets with cases of chronic suppurating glands, with one or more sinuses, which cause but little pain and inconvenience, yet have no tendency to heal save with perfect rest on the one hand, or with the more vigorous measures about to be described on the other.

The condition referred to is one occurring as a sequel to an excoriation of the lower extremity, a strain of the structures of the groin, or suppuration, without any definite history or objective sign indicating the cause. It is far from uncommon to find in surgical practice, say, a young woman, with absence of venereal sore, excoriation, discharge, or sign of injury, complaining of painful and swollen, perhaps suppurating, glands of one groin, and this, too, without evidence of struma or anæmia. In a large percentage of cases, without any assignable cause, simple adenitis makes its appearance in connection with the glands running parallel with Poupart's ligament. The inflammation seldom ends in resolution, because the patient fails to recognize the importance of rest; thus suppuration ensues, and if the abscess discharge spontaneously, or if it be incised, a sinus remains, leading to a gland, and this passage is found to burrow both superficially and deeply. In these simple non-specific cases the granulations are doughty, velvety, anæmic and easily separable. The pus undermines the skin with purple discoloration; the integuments are thinned, and the healing process is tedious in the extreme. The destruction involves the tissue around the glands rather than the glands themselves.

In a late experience of ten cases (males 3, females 7), in which chronic indolent sinuses existed, an anæsthetic was administered, and free scraping with Volkmann's sharp spoon performed, as well as the removal of the glands and sloughing adenoid tissue. The surface is first cleansed and rendered as far as possible aseptic. In practice it is not found necessary to divide bridges of tissue between neighboring sinuses, so long as the under surfaces of these are carefully scraped. The spoon is freely applied to all parts covered by granulations, and a smaller-sized instrument passed along the canals leading deeply. All exposed glands are torn away or twisted from their attachments and the bed on which they lie scraped. The cavity is washed out with a solution of chloride of zinc (gr. 20 to ʒ i), a thick pad of antiseptic gauze is applied, and firm pressure maintained by means of a spica bandage. As a precautionary measure, and in the more extensive operations, in order to avoid movement an outside bracket splint is used.

Cases of chronic suppurating adenitis, which have existed from two to four months, have, by the above-mentioned treatment, rapidly healed. A surface capable of throwing out healthy granula-

tions is produced. The removal of the morbid tissue, which probably acts more or less as a foreign body, expedites the healing process. The coaptation of surfaces induced by pressure causes the permanent union of the parts concerned.

The benefit derived by the removal of supporting cervical glands, as advocated by Mr. Teale, Mr. Treves, and others, is thus secured by a similar operation in other regions. As contrasted with the neck, in the groin we have to deal with tissues which are less firm, and pus is more disposed to burrow; hence the importance of renovating, so to speak, the undermined integuments. By this means a simple and efficacious remedy has been found for the long-lasting misery experienced by those afflicted with suppurating adenitis.—*Practitioner.*

PEROXIDE OF HYDROGEN AS A THERAPEUTIC AND DIAGNOSTIC AGENT.

During the last few years so many articles have been published in which the indications for, and the results obtained from, the use of peroxide of hydrogen have been given, that anything further on that subject may be deemed superfluous. While, for a large number of physicians this may be true, still, owing to the great conservatism of our profession, and the immense number of new remedies clamoring for recognition and adoption, many really valuable remedial agents receive but a passing glance, and are forgotten by the great majority of readers While considering these facts, and the remarkably satisfactory results I have obtained from the use of this remedy, it occurred to me that a short article on this subject might not be entirely without value.

A *reliable* preparation or solution of peroxide of hydrogen is one of our most potent germicidal agents; it is also an excellent deodorizer, but its most characteristic property is the extreme avidity with which it combines with and decomposes pus. No matter where situated, or how small the quantity, the presence of pus is at once indicated by the effervescing, foaming action produced by the oxidizing power of the peroxide of hydrogen. This peculiar property renders it exceedingly valuable in deodorizing and clean-

sing foul ulcers, abscesses, or any pathological condition attended by a discharge, and especially so if the pus is tenacious, adherent and difficult to remove.

I have used this remedy with very satisfactory results in a large number of diseased conditions, especially those attended by suppuration, sloughing, or tissue necrosis of any kind. To be effective, however, the solution must be *fresh* and *active*; it should be kept in well-corked bottles and in a cool place, otherwise it rapidly deteriorates and becomes inert. The following are a few of the diseases in which I have used the remedy:

Diphtheria.—In this dread disease it yields excellent results; the foul odor is neutralized, the membrane becomes friable, less adherent, and often disappears in a few days, and the general symptoms of toxæmia are mitigated. It is value is increased by the addition of 1 grain of bichloride of mercury to from 4 to 8 ounces of the solution. This mixture has probably no superior as a local application for diphtheria.

Gonorrhœa.—As an injection the following combination has yielded good results:

℞.—Hydrargyri bichloridi.....gr. i.
Hydrogenis peroxidi sol.....f ℥ ii.
Aquæ, q.s. ad.....f ℥ vi.

M. Sig. Inject, after urinating, two or three times a day.

In diseases of the *nose* and *throat* it has a cooling, soothing, cleansing and disinfectant action. I prefer a solution of about one-third the ordinary strength, and a mixture composed of 1 part hydrogen peroxide and 2 parts concentrated distilled extract of witch hazel (Parke, Davis & Co's) has acted very nicely in my hands.

I have also obtained very satisfactory results from the same mixture in gynæcological practice. With it the parts can be very promptly cleansed and disinfected. I have also used peroxide or hydrogen as a *diagnostic agent* to determine the presence of pus in deep-seated abscesses or inflamed glands, in which commencing suppuration was suspected. In such cases, especially when the abscess or gland is in close proximity to important structures, as in the inguinal and axillary regions, this agent may be made to rende

material assistance, and lessen the danger of wounding important vessels and nerves.

My method of procedure is as follows: Inject the peroxide solution, by means of a hypodermic syringe, into the suppurating cavity This immediately produces oxidation of the contained pus, marked distention of the cavity, and stretching and elevation of the superimposed tissues, *thereby lessening the danger of wounding important structures.*

Before injecting the cavity, however, the surgeon should have everything in readiness to evacuate the abscess immediately when the distention occurs, otherwise unnecessary pain will be caused. The incision should be free, and the cavity thoroughly washed out with the peroxide solution until the foaming action ceases, and then dressed with bichloride of mercury gauze. I have in this manner operated on extensive suppurating buboes, which healed without a particle of subsequent suppuration, and, indeed, did not require any further attention. This result I attribute largely to the absolute cleanliness that can be secured by the peroxide solution, thereby placing the diseased part in the most favorable condition for speedy repair.

In conclusion, I would present the following summary:

1. A reliable solution of peroxide of hydrogen is an efficient and safe germicide.

2. By its oxidizing power it rapidly decomposes pus, diphtheritic membranes, and other pathological decayed products.

3. It is an excellent deodorizer and a non-irritating, cleansing agent for foul wounds, abscesses, etc.

4. It is a valuable diagnostic agent in determining the presence of pus, and by its use in operations the danger of wounding important structures can be lessened.—*E. Stuver, M.S., M.D, Rawlings, Wyoming, in Therapeutic Gazette.*

In constipation of infants a useful remedy (*Medical and Surgical Reporter*) is three-grain doses of equal parts of calcined magnesia, powdered rhubarb and oleo-saccharure of anise. The latter is made by mixing one part of oil of anise with eight parts of powdered sugar.

SOCIETY MEETING.

THE BUNCOMBE COUNTY MEDICAL SOCIETY.

The stated meeting of the above Society was held at Asheville, on March 14th, 1892, the President, Dr. Karl von Ruck, in the chair.

Dr. Weaver read a paper on "Sepsis," including in the term pyæmia, septicæmia, suppurative fever, and kindred intoxications, all due to the entrance into the blood of the pus germs and their products. According to the rapidity of their multiplications and favorable conditions for absorption of their products, the clinical picture is more or less severe. Pyæmic abscesses occur from the transportation into the blood current of infected emboli detached from clots of wounds or occluded vessels, and the severer forms prove, as a rule, fatal.

The pus germs thrive best upon devitalized tissues, having not yet undergone decomposition, and surgical wounds offer ideal conditions for their growth, if they find entrance.

He denies the occurrence of spontaneous sepsis, and believes that in all such cases infection must have preceded—laudable pus never exists, the pus germs are the cause of all suppuration.

In the treatment prevention is the only resource, and beyond supporting treatment there is none that can avail the patient.

The essayist then related a case in which from a scratch upon the knuckle of one finger intense swelling and suppuration resulted rapidly. Upon disarticulation of the finger at the meta-carpal joint, a deep abscess in the hand was discovered on the third day, and the patient presented the symptoms of general infection, the abscess was evacuated and the cavity thoroughly disinfected with corrosive sublimate solutions, but the process continued with the formation of multiple abscesses in various parts of the body, ending rapidly in the death of the patient, despite all local and general treatment that he and his colleagues could devise.

DISCUSSION.

Dr. Battle agreed with the writer in his views and stated that,

owing to the advances made in wound treatment, such cases as related by the author were fortunately becoming more and more infrequent.

Dr. Taylor could not take so hopeless a view as to the prognosis in even severe cases of septic infection, and related the case of a patient who had previously been treated in Philadelphia on account of septic infection from a post-mortem wound; when he came under his care he presented the condition of chronic sepsis, having some 160 ulcers upon the integument, with great tendency to hæmorrhage, in addition to frequent epistaxis, requiring upon several instances plugging of the nerves. Syphilis was excluded Subsequently periosteal abscesses, albuminuria and abdominal dropsy developed, and the case became to all appearances a hopeless one. Nevertheless, by unremitting efforts, a complete recovery resulted, and the patient now, a year later, enjoys perfect health.

Dr. Burroughs agreed with Dr. Taylor, and related a severe case of septic infection contracted by a nurse from a puerperal woman. There was rapid swelling of the infected finger, hand and arm, severe rigors and high temperature, and he attributes her recovery to the free use of tincture of chloride of iron and of whiskey in full doses, together with proper local treatment.

Dr. Taylor reported a case of belladonna poisoning occurring in a lady who had applied a belladonna plaster to her back. The symptoms were mild delirium, dilated pupils and dry throat, and, owing to the denial of the patient and friends, of medicine or eye-drops having been used, much perplexity existed for a time, until the accidental discovery of the plaster.

Dr. Fletcher had seen some cases of belladonna poisoning which were accompanied with high temperature as a symptom, and asked Dr. Taylor if he observed fever in his case.

In reply Dr. Taylor stated that, although he had not taken the patient's temperature, he was quite sure that there had not been any material elevation.

The Society then adjourned.

CHANGE OF DATE OF THE MAY MEETING

OF THE

MEDICAL SOCIETY TO THE 17th DAY OF MAY,

ONE WEEK EARLIER THAN STATED!

The Local Committee of Arrangements, upon the urgent solicitation of several members, who were also members of the Association of Railway Engineers, saw no objection to changing the date of the meeting so as to allow these gentlemen to be present at both meetings. The Local Committee of the Wilmington Medical Society did this with the desire to make everything as pleasant as possible to the greatest number. They propose now to stand by the new date, **MAY 17th,** although we have found out since that it was a mistake to change from the first date provisionally set by the Committee.

All the provisions having been made for the **17th MAY,** we could not alter it again without confusion.

TUBERCULAR PERITONITIS CURED BY LAPAROTOMY AND DRAINAGE.—Dr. Lindner (*Medical Press*) relates a case as follows: A., aged 5, was admitted into the Augusta Hospital with tubercular peritonitis and right-sided pleural exudation. Tapping was performed and half a liter of fluid withdrawn. As the success was *nil*, laparotomy was performed. The peritoneum, which was thickly studded with tubercle, was washed out with an antiseptic solution. Two and a-half liters of fluid were removed. The mesentery and intestines were firmly adherent. After a number of complications, improvement set in, the pleuritic effusion disappeared, and after a sojourn by the North Sea the boy recovered complete health.—*Arch. Gynæc., Obs. and Pediatrics.*

CURRENT NOTES.

THE following are the officers of the Pan-American Medical Congress: William Pepper, M.D., LL.D., Philadelphia, Pa., President. Abraham M. Owen, A.M., M.D., Evansville, Ind, Treasurer. Charles A. L. Reed, M.D., Cincinnati, O., Secretary General.

CHARAKA-SAMHITA.—We acknowledge the kindness of Kaviraj Abinash Chunder Kaviratna in sending us the first fasciculus of this translation of Charaka-Samhita, which is said to be one of the foremost of the Sanskrit treatises on medicine. Its translation will greatly interest Sanscrit scholars, and will be an addition of some very curious material as a part of the crude beginnings of medicine. We will watch with interest the succeeding numbers.

THE COMMITTEE appointed at the last meeting of the American Medical Association to consider the best means for promoting the prosperity of the sections of the Association will hold an adjourned meeting in the Hotel Cadillæ, Detroit, Michigan, June 6, at 3 p. m. Members of the Committee are requested to notify the Chairman of their intention to be present at this meeting. The Committee would esteem it a favor if each member of the Association would communicate in writing his or her views concerning the best measures for promoting the development of the sections. Such communications may be sent to the chairman of the Committee, John S. Marshall, M.D., 9 Jackson St., Chicago.

IDENTIFICATION OF BLOOD.—We take pleasure in calling the attention of our readers to an article in the *American Druggist* of March 1st, 1892, an article on the identification of blood, by Dr. Charles O. Curtman, Professor of Chemistry in the Missouri Medical College. His revision of the method of the detection of blood by tincture guaiac is valuable. He advises the making of a fresh weak tincture from the guaiac chips, or a bit of the gum taken from the interior of lump. A few drops of ozonized ether (made by shaking equal parts of sulphuric ether and hydrogen peroxide) are added to the tincture of guaiac and the mixture applied to the blood-stain or to a solution of the blood, when a blue reaction ensues. This test has the disadvantage of producing the same reaction in the presence of malt extract and leather, so that the

absence of these two substances should be determined to make it accurate.

OPIATES IN PNEUMONIA.—"For the distressing cough and the pain in the side, opium in some form may be given, either the hypodermic of morphia, or, for the cough alone, Dover's powder. There has been a feeling in the profession that opium was counter-indicated in pneumonia, but I fully agree with Loomis, that it may be given with safety and with the greatest comfort to the patient."—*Osler's Practice of Medicine.*

NEW BUILDINGS FOR THE JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.—The Board of Trustees and the Faculty of the Jefferson Medical College have just completed the purchase of two large lots on Broad street, giving them a frontage of about 300 feet and a depth of 150 feet, upon which they will proceed to erect at once a handsome hospital, lecture hall and laboratory building. The estimated cost of the building is $500,000. The hospital will be built not only as a suitable building in which to care for the sick and injured, but also will be provided with a large amphitheatre for clinical lectures. The basement of the hospital building will be given over to the various dispensaries, each of which will be provided with large waiting and physician's rooms as well as rooms for direct teaching of the students. The building will be absolutely fire-proof and provided with patent sprinklers in case their contents catch fire. By the erection of three commodious buildings the laboratories where delicate work with the microscope or apparatus is carried on, will be separated from the college hall, where didactic lectures are given, and so will be free from any jarring produced by the movement of large classes. With the hospital on one side, affording clinical facilities, and the laboratory on the other side of the College for scientific research and training, the College will be most favorably situated for giving thorough instruction in medicine. Further than this, immediately across the street is the Howard Hospital, and on the adjoining corner the Ridgway Branch of the Philadelphia Free Library, which contains all the scientific works belonging to this wealthy corporation. The new site is more favorably situated in regard to the centre of the city than the old one at Tenth and Sansom streets. The move has been made necessary by the large number of students who are now

being instructed in this Institution, and because the Faculty desire to keep the school and hospital in the foremost rank of medical education in this country. The buildings will be ready for occupancy in the session of '93–'94.

EXTRACT FROM NOTES ON DIURETIN BY H. H. HARE, M.D.—* * * The fourth case was that of an old man of 60, who had concentrated urine and suffered from an enlarged prostate. In the dose of one hundred and twenty grains a day the diuretin decreased his urine instead of increasing it, although the decrease was very slight. The great difficulty in measuring his urine, owing to his lack of vesical control, prevented a carefully prepared table from being kept. In order to determine whether any particular value lay in diuretin (Knoll) or in the sodio-salicylate of theobromine made by Merck, both preparations were employed alternately without any difference in result. As an example of the fact that an investigation should never be considered complete without control experiments, it is interesting to note that a patient who was passing twenty ounces of urine a day was ordered diuretin, but owing to unavoidable delay failed to receive it at once. In the next twenty-four hours he passed sixty ounces of urine without any drug being given, an increase which would have been assigned to the diuretin had it been administered. Perhaps no better example of the price which can be put upon a name can be found than in the example before us. Diuretin (Knoll) costs two dollars and fifty cents an ounce, but sodio-salicylate of theobromine (Merck) costs fifty cents an ounce, or one-fifth as much. At the dose of 2 drachms a day the drug at the first price becomes an impossibility to many persons—an advantage in a name to a patentee and a disadvantage to the long suffering public—while at the latter it is purchasable by a large number.—*Therapeutic Gazette.*

"OUR IDEAS OF THE LIVER—derived, as they generally are, from the organ in the dissecting room or on the *post-mortem* table—are frequently quite erroneous, for we are apt to believe it to be a hard, solid, unyielding organ, whereas, on the contrary, a sponge would more nearly represent its behavior. If we take the liver of an animal—such as a rabbit—which has first been killed, and pass a current of defibrinated blood through it by means of cannulæ tied into the portal and hepatic veins, we find that the organ swells up

enormously or becomes quite small in proportion to the pressure with which the blood is driven through it. The rapidity with which this distension and collapse occur is so great as to remind one, indeed, of the variations of the india-rubber ball of a spray-producer. On looking at such an experiment the first thing that strikes us is the question: If the liver contracts so readily under the variations of blood-pressure within it, why do we find the side of the liver so constant in man? why does it not expand and contract as we see it do in the laboratory? The answer to this is, I think, a very simple one; it is that the blood circulates in the portal vein under a very low pressure indeed, one which is not at all to be compared either with the pressure used in the experiment or that which exists nominally in the arterial system. But every now and then we see changes in living men quite as great, though not so rapid as in the excised liver of the rabbit, of which we have just been speaking. Such changes are especially common in men who suffer from malarial fever, though we see them quite as markedly in the subjects of advanced mitral disease."—*Lauder Brunton in British Medical Journal.*

Two Methods.—To a physician of Philadelphia, widely known and greatly honored, an enterprising firm of dealers in wine lately sent a most lavish and costly case of "samples" of their "medicinal" beverages. The enterprising firm was thanked, and politely informed that the present had been re-presented to ——— Hospital. Another physician writes an effusive and laudatory letter in praise of the wine, as regards its prophylactic and curative properties in disease, and this letter will doubtless be poked under the nose of every one of us for years to come. In certifying to the superior excellences of one special preparation, it goes without saying that, as a scientific man, the physician has made impartial scientific analysis and tests of all competing preparations of the kind, and chemically, physiologically and therapeutically is disinterestedly certain that the one he pronounces the best is really so. If he has not done so his certificate is a farce, and he has unjustly discriminated against other preparations, possibly equally as good, the makers of which trust to the qualities of the preparations rather than to sly advertising dodges. But, whatever the fact, either he has been foolish enough to give a valuable thing for nothing, or he has had value received for the puff.—*Medical News.*

HYDRASTANIN.—Dr. Paul Strassmann, in the *Deutsche med. Wochenschrift*, 1891, No. 47, S. 1283, presents a very thoughtful paper upon this drug, which is to be distinguished from hydrastin. The dose is: in form of pill, one-half grain each; in subcutaneous injection, one to two grains. The results of administration in twenty-seven cases led him to believe it to be a very valuable remedy in the menorrhagias and metrorrhagias due to various pathological conditions so often met with in gynecological practice. At present, however, the remedy is quite expensive. [This preparation bids fair to displace the use of the fluid extract of hydrastis candensis, now so widespread in this country.]—*American Journal of the Medical Sciences.*

TURPENTINE IN THE TREATMENT OF RENAL CALCULI AND GALL STONES.—Dr. C. H. Ralfe, in the *Lancet*, 1891, ii., p. 1271, states that the object of the administration of turpentine in conjunction with so called solvents and diuretics is to assist in the expulsion of any concretion already formed, and to prevent the formation of others. The mode of action in causing expulsion has been stated to be from its powerful diuretic action, especially if given in small doses for sometime; but if there is much colic and a tendency for the stone to pass, it may cause strangury, and thus have an opposite tendency, It also decidedly increases the colic, and it would appear as if it actively stimulated the muscular fibres of the pelvis, of the kidneys and ureters, and also of the gall-bladder and bile-ducts. In long-standing cases turpentine aids the passage of a calculus by improving the condition of the mucous snrfoce of the ureters and bile-ducts; for by diminishing the swelling caused by the catarrh there is less resistance presented to thr onward passage of the concretion, and especially allowing it to pass if it is quite small. As a preventive it renders the secretion less tenacious and viscid—that colloid medium, which writers insist upon as essential to the development of concretions. It also acts as an antiseptic on the bile secreted, and thus prevents the precipitation of cholesterin, which becomes less soluble as bile loses its alkaline reaction—which takes place when fermentation sets in. Durande's elixir is mentioned (one part of sulphuric ether to two of turpentine), and as well the method of Trousseau (a combination of alkalies with turpentine, administered in capsules.)—*American Journal of the Medical Sciences.*

THE INCUBATION OF VARICELLA.—Dr. Talamon (*La Medicine Moderne*, 1891, No. 32) has observed two cases which have given an opportunity of establishing beyond dispute the incubative period of this disease. The patients were a girl and a boy, and the interval between the day of contagion and the appearance of the first symptoms was in each case thirteen days. This agrees with the figures given by Gerhardt—thirteen to fourteen days.—*American Journal of the Medical Sciences.*

GIBNEY ON THE DIAGNOSIS AND TREATMENT OF HIP-JOINT DISEASE.—Six cases are reported in detail, and the following conclusions are reached: (1) An early diagnosis can be made by any one who examines the case carefully, and who familiarzes himself with the functions of a sound joint. (2) The necessity of regarding a case as chronic, and therefore requiring prolonged protection of the joint. (3) The comfort that any patient may derive from an apparatus that is made to fit. (4) The benign progress of a case thus protected. (5) The importance of maintaining parallelism and equality of the limbs at all times and under all circumstances. (6) The advantages of an out-of-door life, which cannot be secured by bed treatment. (7) The necessity for excision of the hip when well directed efforts at securing rest and protection to the joints have failed.—*Boston Med. and Surg. Jour.*

POSTURE IN ANGINA PECTORIS (*Revue générale de Clinique et de Thérapeutique*, No. 4, 1892, by H. Huchard.—Attacks of angina pectoris are almost always accompanied by increase of the arterial tension, and amyl nitrite owes its success mainly to its power of diminishing this increased blood tension. The theory of increased arterial tension explains the production of anginal attacks by all those causes, which increase the work of the heart and vascular pressure. The author looks upon the fact of the production of these anginal attacks by all acts requiring an effort or producing arterio-capillary spasm, as one of great importance, and lays down the following rules with regard to diagnosis: (1) Angina pectoris brought on by any effort whatsoever, by rapid walking, etc., is a true angina; (2) angina pectoris occurring spontaneously, without the intervention of any act requiring an effort, is a false angina. This is an important point in the diagnosis, for death may occur from the first form of angina, but death never occurs in the second

form. It has long been known, however, that severe attacks of angina occur during the night, and Huchard lays down a third rule; (3) when a patient, subject to crises brought on by effort, has a spontaneous attack during the night, the first rule is not defective; the attack is one of true angina. Anginal patients prefer instinctively the vertical posture Patients suffering from repeated and frequent attacks of angina often refuse to lie down, because such a posture is intolerable. It has been shown that the recumbent posture and sleep alone increase the arterial tension, and the vertical posture diminishes it. This is the explanation of the nocturnal anginal attacks, and of the attitude preferred instinctively by the patients. The increased arterial tension of sleep is due not only to the recumbent posture, but also to the nocturnal auto-intoxication of the organism. Since the author's attention was drawn to this subject he has always recommended anginal patients (especially those who have crises during the night) never to lie with the head low, and in this way he has succeeded in preventing the nocturnal crises of a patient who lived in continuous fear of death.—*Medical Chronicle.*

HYPERTROPHY OF THE PROSTATE.—Hypertrophy of the prostate is often regarded as a hopeless condition, both from a medical and a surgical standpoint. I have, however, recently had two cases of cure of the prostate enlargement. The first case was that of a gentleman seventy three years of age, who was sent to me some years ago with an old-standing enlarged prostate. He was treated by me after the plan of a mild negative electrolysis in the urethra. The applications were made twice a week, the current strength being from five to ten milliamperes. I subsequently increased the dosage to twenty-five milliamperes, which produced considerable irritation. The duration of each application was from three to five minutes. This was repeated three or four times, when I lost sight of the case. Two years afterward I met the physician who sent him to me, and learned that the patient claimed that he was entirely well.—*Dr. G. Betton Massey, in Cour. of Med.*

THE BATTLE OF THE BACILLI.—The *Lancet* of 9th January has an interesting article on the methods of warfare employed by bacilli in attacking animal life, and from which we cull a few choice sentences: "The outworks of the fortress are extensive, the de-

fenders are few and scattered, but active and capable of quick concentration. It may sometimes happen, therefore, that the numbers of the enemy admitted are insufficient to gain a footing, and, after a more or less severe contest, are overcome, their bodies squeezed and sucked, and then thrown out; or, on the other hand, it may happen that the garrison, tired and exhausted, or taken by surprise by a large body of the enemy, are unable to resist, and then utter rout and destruction are the result. * * * Thus 250,000,000 of staphylococci injected into a rabbit will produce an abscess in this animal, but 1,000 millions of the same parasite will cause death. A few drops of a culture of the bacillus pyocyansus injected into the veins of a rabbit give rise to a chronic disease, whereas, a quarter of a cbbic centimetre of the same culture kills the animal with certainty. The nature or virulence of the microbes introduced, the animal experimented on, and the mode in which the introduction is effected—as, for example, into the blood itself or into the subcutaneous connective tissue—are all circumstances that materially modify the result. Still it is interesting to inquire by what means the injurious effects caused by a minute quantity of the poisonous fluid injected are prevented, when it can be easily demonstrated that a slightly larger quantity proves fatal."—*Sanitary Journal.*

MAMMARY ABSCESS—PREVENTION OF.—Tarnier (*Journal des Sages Femmes*, December 16, 1891, *Brit. Med. Jour.*) insists upon women being kept very clean in childbed. Their hands must be washed, else the nipple may be contaminated by a finger that has just touched the vulva. The nipple should be washed both before and after every act of suckling, with water that has been boiled, or with a solution of boric acid. The washing must be done with clean lint or sterilized wool, and not with a sponge. The preliminary washing is necessary, as there might be microbes on the nipple, and the child's mouth might transfer them to a minute fissure, frequent on the nipple after delivery. The second washing removes from the nipple all milk which, if left there, might become a breeding ground for germs, and thus set up abscess, or infect the child's mouth and cause aphthæ. Professor Tarnier takes a stronger precaution in his wards. Every woman has her breasts dressed, as a preventive measure, with a compress soaked in a 1–5000 sublimate

solution, held in place by strapping, as the pad is likely to slip; a band of gauze is passed round the thorax and wound around the breasts, so as to envelop them completely. There were, in consequence, only two cases of abscess of the breast from November 1, 1889, to July 15, 1890, and in both the mammæ were, for different reasons, neglected. This application of sublimate cannot possibly hurt the fetus. A syphilitic infant can safely take 5 minims of Van Swieten's solution. The equivalent of that dose in a 1–5000 sublimate solution would be 25 drops, and a child suckling a breast dressed as above described could hardly swallow a trace of the mercury.—*Archiv. of Gynæc., Obstet. and Pediat.*

Irritable Bladder—Electrical Treatment of.—Grapow, (*Centralblatt für Gynäkologie*, 1891, No. 44; *Am J. Med. Sci.*) reports three cases of enuresis in young women between the ages of seventeen and nineteen years, in one of whom the condition had persisted since childhood. He used the faradic current with the bipolar electrode introduced into the bladder. Ten séances were given, of five minutes each, the secondary current of moderate strength being used. In two cases the trouble disappeared after the first application; in the third it persisted only until after the following menstrual period.—*Archives of Gynæcology, etc.*

Europhen.—This new iodine compound, continues to give very satisfactory results to practitioners, so much so that it is difficult as yet to place well-defined limitations as to its final value in therapeutics As a substitute for iodoform, it has an admirable action, causing prompt cicatrization and insuring the operative field against further morbid degeneration. It has the further advantages of being a perfectly safe application, and is free from disagreeable odor, while it possesses a covering power five times greater than that of iodoform. It is unsurpassed as a surgical dressing, forming an adherent coating over tissue lesions and on mucou surfaces. It is used in all ucerative and muco-inflammatory conditions, external and cavital. Hypodermically, Europhen has been advantageously used in constitutional syphilis, the amount injected being ¾ to 1½ grains, in a syringeful of oil, once daily. It is better to begin with the smaller amount.

INOCULATION IN NORTH CAROLINA.

Messrs. Editors North Carolina Medical Journal:

DEAR SIRS:—In "Current Notes" of the JOURNAL for January, page 54, mention is made of Dr. Hugh Williamson's visit to New Bern in 1779, "for the purpose of communicating the small-pox to such as had not experienced the benefits of inoculation," and in this connection the question is asked, "Is this the first inoculation against small-pox practised in North Carolina?"

Hardly, I think. A letter of Col. Alexander Martin, of the 2d Regiment of North Carolina Continentals, to Gen. Washington, written from Alexandria, Va., under date of May 16th, 1777, reports to Washington that the "First Division" of the North Carolina Brigade had halted at that town for "inoculation." This was two years before Williamson's visit to New Bern. Col. Martin, as senior officer, was in command of the advance of Nash's North Carolina Brigade, then on its way to join the Northern Army.

True, this inoculation of the troops was not done *in* North Carolina, but it must have been by the several regimental surgeons, and Martin's letter gives evidence of a familiarity with the operation and knowledge of its beneficial effects. A fair inference is that it was well known and practised at home.

What regiments constituted the "First Division," besides the 2d, Col. Martin, afterwards Governor, and the 3d, Col. Jethro Sumner, afterwards Brigadier General, the writer cannot say, but the surgeons of the two mentioned were William McClure, of the 2d, and William Ridley, of the 3d. William Usher had been surgeon a very short time before the date of Col. Martin's letter, and may have been with the 3d Regiment at that time, but was more probably with the 4th, to which he was transferred.

The letter of Col. Martin referred to is in the State Department at Washington, D. C., among the "Letters to Washington," book 15, page 212.

GRAHAM DAVES.

DR. D. HAYES AGNEW died at his residence in Philadelphia March 22d, 1892. We will have a full obituary notice in the April JOURNAL.

READING NOTICES.

For the past year or two I have been using Peacock's Bromides with good success, and from my experience find it the most satisfactory of any of that class of preparations now on the market.

Lamonte, Mo. A. Conway, M.D.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning
For catalogue, write Rochester Lamp Co. New York.

H. J. W. Martin, M.R.C.S. and L. S. A., Hounslow, Middlesex, England, says: "I have used S. H. Kennedy's Extract of Pinus Canadensis in an obstinate case of gleet that had existed for some six months before coming to my notice, with marked success, a vast improvement taking place after using one bottle of injection, and before the third bottle was finished a cure was effected which was permanent."

Bromo Soda.—On account of my happy experiences with Bromo Soda in the case of my daughter—who, by the way, has Incipient Phthisis—and as every true physician should, when a remedial agent of undoubted value is put into his hands, I feel it incumbent upon me to make known its therapeutic value. For a length of time my daughter had suffered most excruciating pain from headache accompanied with most debilitating nausea. Remedy after remedy was prescribed without accomplishing more than a negative result, until we almost despaired of affording her any permanent relief My attention about a year or a little less ago, in England, was called to Bromo Soda as being likely to afford relief. Some of it was obtained from F. Newbery & Sons, 1 King Edward Street, London, E. C. Moderate doses at first were exhibited to see how the irritable stomach would receive it. Finding that it did not disagree, the dose was gradually increased till the urgent symptoms began to subside, and it affords me great pleasure to inform you that, after three months persistent use of the Bromo Soda, I feel assured that she is permanently rid of the two difficulties already referred to, and her general condition better than for several years. Its gentle, at the same time powerful, sedative action, certainly places it in the front rank of the remedies controlling the action of the Pneumogastric Nerve, and the entire medical profession should co-operate with you in making known its value as a reliable therapeutic agent.

To Wm. R. Warner & Co.

C. C. Perry, M D., 214 W. 42d St., New York.

NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D., } Editors.

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ORIGINAL COMMUNICATIONS.

A SCIENTIFIC CURE FOR HERNIA.

By Benjamin T. Shimwell, M.D., Lecturer on Surgery in the Medico-Chirurgical College.

(Read March 9, 1892.)

All methods devised for the radical cure of hernia seek to reach their object by obliteration of the canal, and by this plan to retain the protruding gut. This is the treatment of effect, not of cause.

While fully recognizing the comparative frequency of this trouble, we must not overlook the fact that it is in the minority. As we are all subject to the same exciting causes we should look for some anatomical reason that will explain its occurrence and non-occurrence, and why after operation, where fibrous tissue in

apparent quantity existed, return was possible. There must be more than the production, or rather reproduction, of a canal from the abdomen to the scrotum to account for it.

The first thing, then, to consider is not the inguinal rings or canal, but the intestines, the prime factor in the case.

The intestines are not a tube lying perfectly free in the abdominal cavity to be pushed here and there, making pressure at this or that point. If they were attached but to the pyloric end of the stomach and to the anus, then it could readily be seen how intra-abdominal pressure could possibly rupture any weakened point in the belly wall, with consequent protrusion of the gut. Instead of being so arranged, their position and action are limited by the folding around them of the peritoneum forming the mesentery.

Careful examination of the body in the dead-room fixes a normal relative position for this limiting membrane. Its point of attachment to the parietes begins to the left of the second lumbar vertebra. Its insertion then follows a line obliquely downward and to the right, to attach itself on the right iliac fossa. Its average length is eight inches; an increase above this is an abnormal state, and on this increase in length depends the production of hernia. The examination of numbers of bodies has proved, beyond cavil, that when a normal condition of the mesentery exists, it is impossible to drag the gut into the inguinal or femoral rings.

Is it scientific to say it is chance that prevents the whole human race from having hernia? Also to lay it to the firmness of attachments of the opposing surfaces of the inguinal canal, or the structures that cover a present hernia? The pushing forward of the superimposing layers of tissue and separation of the obliterated canal speak ill for its preventive power. If they are preventive, then the sudden rupture would give us more serious consequences in primary protrusion than experience shows. The canal does not show the after-conditions that follow usually from tearing, which would be excessively marked here if strong union had taken place. Neither subjective nor objective symptoms are present. It is coaptation, not union with firm tissue formation.

It is clear to my mind that the normal length of the mesentery is the preventive factor in the non-production of hernia. If not so, then no one could escape. The exigencies of life and our surrounding conditions are such that all of us at times are subjected to

violent strains, giving rise to intra-abdominal pressure sufficient to rupture the internal openings, and to allow the gut to enter the canal.

If these assertions are true, then any operation which has been suggested does not prevent, but modifies. Therefore, any procedure seeking to prevent hernia by obliteration of the sac does not cure. The possibility of return exists.

What is the rational treatment? The opening of the abdomen and shortening of the mesentery. The width of the mesentery does not increase in adult life, but the length is liable to.

The opening of the abdomen and shortening of the mesentery may be objected to on the ground of possible risks. The safety of the operation of abdominal section is settled. The shortening of the mesentery offers no objections. It may be said that the blood supply of the intestines may be interfered with. Careful experiments show the reverse.

Further, to prove that peritoneal inflammatory changes do not affect the blood-supply, is instanced in the omentum after diffuse peritonitis. Operations during the acute stage and post-mortems have shown me conclusively the possibility of contraction occurring without strangulation. In every case of acute peritonitis, unless adhesions have taken place, or, in fact, any case where the omentum has been much handled, we always find it drawn up to its gastro-duodenal attachment as a knotted mass. Still its vitality is maintained. Also, the invaginated mesentery into the divided bowel, in the operation of intestinal anastomosis, does not lose its vitality by contraction and inflammation. Here there is not only change by contraction due to the invagination, but also thickening from the inflammatory products thrown in and about its attachment. That this portion of the mesentery still supplies the bowel with blood is proven by the number of experiments I made, to show that division of the mesentery at the point of invagination caused gangrene. This proves that, though changed in its structure pathologically, it does not interfere with its nutritive function as a carrier of blood.

It is understood that the value of an operation lies as much in its freedom from risks as in its ability to maintain its advantages when successful. The freedom from risk has been one of the so-called advantages claimed for the radical cure suggested. Can this be

truly said of these methods? It is not always in the province of any operator to say when the operation is finished that he has not divided the spermatic duct. This is not recognized in unilateral operations, providing the other organ and duct is viable, but if not, or if in any subsequent time inflammatory change takes place, it is plainly seen the disadvantages that would arise. There is also the possible atrophy of the testicle from injury to its nerve-supply. Then, again, sharp attacks of peritonitis have occurred with consequent changes. There is a law of serous cavities that is definite: "Any inflammation, unless limited by adhesive contact, is diffused over the whole surface." This will hold as good here as in an operation done through section.

The longest part of the mesentery is usually confined to about five feet of the bowel included in a space beginning at a point six feet from the duodenum. If this is above the average length it is apt to hang into the pelvis, and is, in all probability, the portion protruded. It is but reasonable to suppose it is the same loop that is recurrent in its extrusion. There would be no difficulty in locating this portion, as the hernia would be present.

The shortening is done by folding the mesentery over on itself, and holding in this position by interrupted sutures The intestine can be delivered, folded, sutured, and then replaced, and successive portiont so operated upon. This is a step that of necessity requires expertness in handling the intestine that is only got by practice. The delicacy of the mesenteric tissue is understood. The union of the attached surfaces is rapid, and having been so shortened, there is no possibility of relengthening. Experiments, operations and post-mortems in cases which had peritonitis, show persistent shortening of the meseutery, the intestines being drawn nearer the spine.

The operation can be done perfectly aseptic, obviating risks. The bowel is not injured. It is done quickly, closure is made, and the patient out of bed in a few days.

DISCUSSION.

Dr. Joseph Hoffman: Dr. Shimwell's suggestion can certainly claim the merit of being new, but any procedure which strives to cure hernia by it must fail. If the portion of bowel that presented was always the same, the procedure might be logical. It is, however, founded upon a false conception of the condition present.

These conditions probably do not obtain in the greatest number of cases, and consequently the methods cannot be really a cure for the condition. Other things besides the bowel may constitute the hernia. In woman the ovary may be present. The appendix may get into the ring, and shortening of the mesentery will hardly cure that. Further than this, the omentum may constitute hernia This is a prolific cause of hernia. It is probably at the bottom of most hernias primarily, and in many cases it precedes the bowel. We often find nothing in the ring. Strangulation has occurred and the gut slipped back, and the strangulation is back of the ring

So far as considering shortening of the mesentery as a cure for hernia, we must understand what we mean by cure. Those who have done the most radical operations for hernia are not bold enough to say that they have cured a case—that is to say, so cured it that it will not come back. It cannot be held that such an operation will cure the predisposition for lengthening of the mesentery. So far as shortening of this tissue by inflammation is concerned, that is entirely theoretical. We cannot say that because the mesentery is thickened, it is shortened. The suggestion, while it has apparently a foundation in fact, must be taken entirely as experimental, and experimental in the line that it is not likely to be followed by practical results.

Dr. George E. Shoemaker: It is easy to decry anything which is unusual, yet every method must stand on its own merits. No consideration of this subject is complete which ignores the congenital defects of the ring, since these are at the bottom of many hernias. We find congenital hernia in the very young. Later in life the rings may be too large and weak from congenital defect, although no hernia is present, but a strain is suddenly thrown upon the parts and a hernia is produced. Such a shortening of the mesentery as would draw the intestine away from the abdominal wall is inconceivable under the physical laws which control intra-abdominal pressure; and with the intestine in contact with a weakened point protrusion is always possible.

Dr. T. S. K. Morton: Several years ago a London surgeon—I think Mr. Morris—wrote quite an elaborate thesis on the subject of the mesentery and its relation to hernia. He apparently demonstrated that in the cases of hernia which he had examined there was distinct lengthening of the mesentery which seemed to be

peculiar to such cases. He found this in the very young, and he urged that the lengthening of the mesentery had a great deal to do with the occurrence of the hernia. I have seen this statement incorporated in one or two text-books, and it seems remarkable that no one has before this thought of suggesting the operation of doubling the mesentery on itself to prevent the occurrence of hernia. I understand that Dr. Shimwell has done this operation upon animals with satisfactory results.

In this connection the recent suggestion of Mr. Tait in regard to treatment of hernia by abdominal section comes up with special force, If, as Mr. Tait tells us, it is exceedingly easy to draw the hernia back even when tightly strangulated, and if, at the same time, we can shorten the mesentery and cure the hernia, and also deal with any prolapsed omentum, it would be a distinct advance in surgery. The method is not applicable to all cases of hernia. If the operation has any field it is in inguinal, and especially in femoral hernia. Dr. Shimwell has thrown out a very valuable suggestion, and I should hesitate very much to condemn the method until I had heard more about it.

Dr. Shimwell: I did not attempt to apply this method to all hernias I think that any case in which the hernia can be maintained by a truss should not be operated upon. The method was suggested for those cases in which a radical cure was indicated. The method, of course, is applicable only to intestinal hernia. When we find omentum in the sac we do not hesitate to remove it. In peritonitis the omentum is contracted, and is found high up in the peritoneal cavity, and is of no use. The occurrence of congenital hernia is no objection to the method. The difficulty may not be originally in the canal, but the lengthened mesentery may permit the bowel to so press upon the canal as to weaken it. It seems folly to tinker with the canal and not try to remove the cause.

To Dissolve Cocaine.—Squibb recommends the use of a half of one per cent. solution of boric acid to dissolve cocaine, this amount being needed to prevent decomposition.—*Medical Record.*

SELECTED PAPERS.

TUBERCULOSIS IN CATTLE.

TUBERCULIN AS A DIAGNOSTIC AGENT.

There is no aspect of the subject of tuberculosis that is not important. There is probably none more important than the prophylaxis. As the disease is in no small degree transmitted by the milk and flesh of cattle, any means that facilitates its detection in and eradication from the source of food-supplies must command earnest attention It is on account of the vital importance of the subject that we present herewith a detailed report of the proceedings in connection with the discovery of tuberculosis and the slaughter of some of the cattle of a herd of valuable animals, and the means taken to eradicate the disease. Not an insignificant feature of the investigation is the part played by tuberculin as a diagnostic agent. The movement inaugurated should make a departure in hygienic methods of practice.

HISTORY OF THE HERD.

The Claremont herd of Jersey cattle was established about 1882–'83, and springs from a number of imported cows which were bought at that time. Frequent additions to the herd have been made, from time to time, of animals bought in New York, Baltimore and Canada, and none but the choicest individuals have been selected, for which high prices have been paid.

All of the leading strains of Jersey bulls have been used, and to-day the Alphea, Rioter, Stoke-Pogis, Coomassie, St. Lambert and Guilderoy blood is found represented by many splendid animals.

Every precaution has been taken to preserve the health of the stock and to increase their constitutional vigor. Inbreeding has never been practised, and the stables and animals have always been cared for in the best manner.

If good ventilation, the choicest of food, plenty of exercise and pure water are potent factors in preserving the health of animals,

this herd has been supplied with all of the conditions favorable to the most perfect health.

The herd has been regularly examined by experts, and the present outbreak of tuberculosis was discovered but a few weeks ago. In the rare cases in which the disease has heretofore been detected, the affected cattle have been destroyed at once, and their places in the stable disinfected.

By the use of tuberculin the disease was discovered in animals that seemed to be in perfect health, and it was not until this discovery that the heroic measures adopted were decided upon.

Experts hold that tuberculosis prevails to a great extent in many of the large herds of the country, and that it can be eradicated only by promptly killing all suspected animals. All agree that it is better to kill some suspected animals and find them free from tuberculosis, than to allow a single suspected animal to remain in a herd.

Mr. Gillingham's action is an example of public-spiritedness that has been seldom equalled, and the public would profit immeasurably if others would follow a similar course. The sacrifice of animals worth thousands of dollars must command the warmest admiration.

REMARKS BY DR. PEARSON, *Assistant Professor of the Theory and Practice of Veterinary Medicine in the University of Pennsylvania.*

I was requested by Mr. Joseph E. Gillingham, several weeks ago, to examine a cow in his herd which did not seem to be doing well, and I found it suffering from tuberculosis. The animal was killed the next day, and the diagnosis was confirmed by the post-mortem examination. Thereupon I made a careful physical examination of the entire herd, and found five cows affected with the same disease, all of which were promptly destroyed. A short time after this a fat cow that would not breed was killed for beef, and it was discovered to be in a highly tuberculous condition. This caused me to suspect that the disease might be more prevalent than we heretofore had reason to suppose, and with the object of detecting the affected animals it was decided to use tuberculin as a diagnostic agent. It is well known that tuberculosis in cattle is exceedingly difficult to diagnosticate, and that there are no physical signs by

means of which we can recognize any but well-advanced stages of the disease. It is for this reason that tuberculin is so valuable as a diagnostic agent. The subcutaneous injection of a small quantity of tuberculin is followed by elevation of the temperature of a tuberculous animal, but not otherwise. These are, at least, the results that have been obtained by numerous foreign investigators, and by the Tuberculosis Commission of the Veterinary Department of the University.

Tuberculin has now been used on hundreds of cattle, and with the most satisfactory results. Of course, nothing is absolutely infallible, and there are a few cases on record in which the characteristic reaction to tuberculin failed to appear. But we must remember, in this connection, that many incompetent persons have experimented with tuberculin, and that of the vast literature of the subject some is untrustworthy.

It has also been said that tuberculin will cause a reaction in animals suffering from chronic inflammatory diseases other than tuberculosis; but it is well to call attention to the fact that tuberculosis frequently occurs in association with other diseases, and that in these cases the rise in temperature may have been due to undiscovered tuberculous lesions. That this may happen is shown by an occurrence in Germany. A cow was given an injection of tuberculin, and reacted characteristically; she was killed and tubercles sought, but none were found. It was thought that the agent had failed, until the animal had been hung up and the vertebral column divided, when well-developed tubercles were found in the bones of the back.

In the few cases in which reactions followed the use of the agent and post-mortem examinations have failed to disclose the existence of tuberculosis, may not similar conditions have been present? In all, seventy-nine of Mr. Gillingham's cattle have been tested with tuberculin, and of these thirty have reacted in a manner that has been interpreted as indicating the existence of tuberculosis.

Of these two have been killed, and were found to be diseased. After discovering how prevalent the disease probably was in the herd, the question of the disposal of the animals became the all-important one. Three courses were open: The animals might have been kept, as they were all apparently in good condition and appeared well, and many were yielding large quantities of milk;

or they might have been sold, for they seemed to be in perfect health, and would undoubtedly have brought good prices; or, lastly, they could be killed, and thus the danger of contamination of the other animals and of the milk be removed. Mr. Gillingham did not, for a moment, consider any but the last method of disposing of the animals. As soon as tuberculosis was discovered, he ordered the affected cows destroyed, and the milk from animals known to have tuberculosis has never been sold or used. The remaining healthy animals will be placed in disinfected stables, frequently examined for incipient tuberculosis, and strictly kept from associating with suspected animals. In this way it is hoped that the progress of the disease will be checked, and the health of the remaining animals preserved.

REMARKS BY DR. GUITÉRAS, *Professor of Pathology in the University of Pennsylvania.*

It is seldom that an opportunity like the present offers for experimentation on so large a scale. Here, indeed, the public spirit of the owner of these animals has vied with the magnitude of the subject. The occasion is, therefore, one that well deserves earnest attention, and it may interest the public to have the problems here involved presented from their several points of view.

The facts are briefly these: A number of animals in a fine herd of cattle is suspected of being tuberculous. In a few of them the diagnosis has been confirmed by post-mortem examination. In others, apparently healthy, the suspicion rests mainly on evidence furnished by the use of tuberculin as a means of diagnosis. As you have heard, it is now proposed to kill the animals.

There are several lessons to be learned from the investigation of to-day.

1. The value of tuberculin as a means of diagnosis will be proven. When a physician pronounces a case to be tuberculous, he is nearly always right, because there is hardly a subject in medicine that has received more careful and successful study than this. Occasionally, however, the physician will find that his suspicions have been unfounded, or, more often still, he will find tuberculosis when it was not suspected. It appears that tuberculin can reduce very considerably the number of such errors. The experiments made in Karlsruhe, Dresden, and Dorpat, and in France, show that the

masked tuberculosis of the lower animals may often be detected by means of tuberculin.

2. Our attention should be called to the example that is to be given to-day of an earnest and grave consideration of a question relating to the public health. Of all medical problems none equals in importance that of tuberculosis—a disease that causes one-seventh of the deaths of the human race. Whenever it can be clearly shown that its progress can be arrested in any direction, no sacrifice is too great if it brings about the desired end. Tuberculous cows are a menace to the public health. The following facts will leave no doubt as to this. The meat of a tuberculous cow contains the microbes of tuberculosis. Even after such meat is cured by salting or smoking, it can by inoculation be successfully used to produce an experimental tuberculosis in some of the lower animals.

Another danger is that of transmission of the disease by means of milk. In many localities it has been found that ten per cent. of the stall-fed cows are tuberculous. Of these, fifty per cent. will yield milk containing the microbes of tuberculosis—milk that can be inoculated into guinea-pigs and produce tuberculosis. Of course, the material thus used by the experimenter is placed under conditions the most favorable for a successful inoculation. In the natural course of events this is far from being the case. On the contrary, innumerable agencies, some of which are unknown, render the process of transmission of the disease much more difficult than it is in the hands of the experimenter. Hence it is that we do not all have tuberculosis. But we stand between this evident source of danger and the frightful mortality that I have mentioned. I will not leave this subject without saying that a temperature of 68° C., kept up for thirty minutes, will destroy all the bacilli of tuberculosis that may be present in milk.

It is not alone in the food-supply that the products of tuberculous cow may be brought to us. Indeed, it is probable that in the majority of instances we take in the tuberculous material by inhalation, and not by swallowing. The tuberculous material taken in by inhalation has more chances of taking root, as it were, than that which is swallowed.

And how is milk inhaled? By drying wherever it may fall, and being blown about with other particles of dust. Guinea-pigs can experimentally be made tuberculous by putting some dust under

their skins; and if the dust is obtained from rooms in which tuberculous patients are being treated, the chance of a successful inoculation is much greater than that in the case of dust taken from other apartments. The conclusion to be derived from this is, that we should not allow tuberculous patients, human or otherwise, to make tuberculous dust.

3. We shall look forward with great interest for the result obtained by the destruction of these animals. How far will the desired end of eradicating the disease be attained? How far may the young cattle be already tainted? How far may the premises be infected?

It may be possible, by this experiment, to demonstrate how tenaciously the infecting material may adhere and be renewed about premises that have once been infected, or by what means it may be destroyed.

It is by no means easy to demonstrate the success of measures of disinfection of premises against tuberculosis. I would suggest that in carrying out measures of this kind attention should be paid to the removal of all classes of vermin existing about the premises, especially rodent animals, that might be the means of perpetuating the evil. I once saw what appeared to be a successful disinfection of a country house against tuberculosis, and it was signalized by the destruction and driving away for months of mice, bats and insects. In disseminating the germs of disease there can be no doubt of the pernicious activity of these agents.

REMARKS BY DR. SHAKESPEARE, *lately United States Commissioner to Investigate Cholera in India and Spain.*

We learn from the census of 1880 that we possessed in this country about 43,400,000 cattle, 49,000,000 sheep, and 51,000,000 swine. Of these animals it is the common experience that cattle and swine suffer most from tuberculosis. Passing by without remark the ravages of tuberculosis of swine, I shall briefly endeavor to show the importance of the subject as regards the interest of cattle-breeders and dairymen, and point out its relations to the public health.

1st. *As to the extent of tuberculosis in cattle.*

The statistics concerning the extent of tuberculosis in cattle are exceedingly incomplete, and for some countries entirely wanting;

but it may be safely said that, whatever the figures, they are far short of the real truth.

Taking all cattle of all ages and uses, including calves, a low estimate of the average percentage of those visibly affected with tuberculosis is two per cent. The highest percentage of disease is, by common observation, found to be among the milch-cows, and it ranges in different herds and localities, from three to ten or more times the general average. It will be within truth, therefore, if we say that in 1880 there were in this country 868,000 cattle affected with tuberculosis. Every bovine animal suffering from tuberculosis will ultimately die of the disease if it be not killed. This means a loss to the farmer (placing the value per head at twenty dollars) of $17,360,000 per annum. In 1880 there were 12,443,000 milch-cows. Estimating the percentage of disease among them at ten, a conservative figure, we find that 1,244,300 were tuberculous. Fixing the value per head at thirty dollars, we learn that the loss, if these animals were not sold in the shambles for beef, is $37,329,000.

2d. *Tuberculosis is highly infectious and contagious among cattle and swine.*

It is now universally recognized by competent veterinarians and pathologists that tuberculosis is virulently infectious and contagious among cattle and swine, and it is an established fact that, as a rule, higher-bred and well-cared-for herds suffer most from its ravages. Once started in a herd, unless the most vigorous and judicious means are early enforced for stamping it out, it bodes the slow but certain destruction of the majority, if not, indeed, of the whole. The infectious principle is contained in the material that comes from the diseased parts; that is, in the matter which is coughed up from the lungs, and is either swallowed or thrown off in the act of coughing. The bowels are often ulcerated. The excrement, therefore, contains the discharges from these ulcers, as well as the matter thrown off from the lungs which is swallowed. This infectious material has been, unfortunately, found to be highly resistant to the action of the ordinary natural agents of destruction, such as drying, freezing, and the like. The excrement and the matter expectorated, therefore, infects for a long time the stables and other places frequented by the affected animals, becomes dry, powdered, and rises in the dust, to be inhaled and swallowed by healthy com-

panions, that in their turn contract the disease, and themselves form new centers of infection. It seems to be pretty clear, also, that sometimes, in cattle, the disease is transmitted to the offspring from a tuberculous bull, who may be suffering from a concealed tuberculosis of the genital apparatus.

3d. *Absolute necessity for the enforcement of vigorous measures to eradicate the plague, and economy alone in their prompt and unstinted adoption.*

Experience has proved the utter uselessness of temporizing by trusting to quarantine of visibly affected animals and disinfection of stables, etc. The only measure that promises any degree of certainty to arrest and prevent further ravages in a herd, is the prompt destruction of not only all visibly affected animals, but also of *all suspected animals*, accompanied by as thorough a disinfection of the surroundings as is known to modern science. Mr. Gillingham has, in my opinion, in deciding to follow the course recommended, done well from the standpoint of advanced public spirit. But he has adopted a course which in the end—notwithstanding its great first cost—will most benefit his own pocket. *It is unquestionably the economical course.*

4th. *The constant danger to the public health from tuberculous cattle.*

I have now reached the most important part of this question for the general public.

Tuberculosis in the human being is possibly more prevalent than among cattle. It is estimated by reliable mortality statisticians that from one-fifth to one-seventh of all deaths are due to some form of tuberculosis. The disease is now recognized to be less hereditary in the human being than it is infectious. There is no fact better established in medicine to-day than that the human being who has no hereditary tendency whatever to tuberculosis can acquire the disease by taking into the system the infectious principle of the disease. One of the most frequent modes of infection in man is by inhalation But it is also certain that in the laboratory the disease can be easily produced artificially in animals experimented on by way of the digestive canal.

There is ample evidence that a large percentage of tuberculous milch-cows produce milk that contains the infectious principle of the disease. The use of such milk for infants' food without boil-

ing constitutes an undoubted danger that they may become infected. In fact, since tuberculosis in the human race has become better known it has been found that in infants and young children in some large cities the mortality from some form of tuberculosis is far greater than has been generally believed, amounting in some localities to one-fifth of the deaths in the young. The significant fact in this connection is that it is most frequently some part of the digestive passages that become first affected. In conclusion, I wish to say that the experience of Mr. Gillingham is by no means single or at all uncommon. It is, however, uncommon for one in his situation to adopt so wise a course. I wish to enforce his experience as one more of the numerous examples of the necessity for the general public in large cities to see to it that there is proper inspection of their meat and milk supplies.

REMARKS OF DR. A. C. ABBOTT, *First Assistant in the Laboratory of Hygiene, University of Pennsylvania.*

Prior to the introduction of tuberculin by Koch, bacteriological studies were directed more to checking the spread of infectious diseases by means of vaccination with either modified organisms or their nutritive products than to the therapeutic employment of these substances in the treatment of disease already in progress.

The method employed by Pasteur for the treatment of rabies, which, in many respects, appears to be analogous to the method of Koch, though certain essential points are lacking to permit our making the positive statement, was the only therapeutic employment of what seem to be the products of growth of bacteria, or modifications of the substances composing the bacteria themselves. I say, seem to be, for we are not yet in a position to say that bacteria are the agents underlying the condition known as rabies.

Until the introduction of tuberculin the method in vogue for preventing the spread of infectious diseases was, in the main, that of causing a mild or modified form of a disease by inoculating the animal with the organisms concerned in its production after their virulent character had been so altered by chemical or thermal agents that they no longer possessed the power of producing the malady in its normal intensity. This modified attack often afforded immunity against a subsequent attack of the same disease.

Another common method aimed at causing certain indefinite

reactionary changes in the tissues by the introduction into the animal of the chemical products of bacterial growth from which the organisms that had produced them had been carefully separated by filtration.

In both of these methods the application of high temperatures, particularly in the latter, was fatal to the success of the experiment, for the virtues of the immunity-affording substance that existed in the chemical products of these special bacteria, that had been studied in this direction, were entirely destroyed by these temperatures.

It is plain, therefore, that, unless the separation of the living and virulent organisms from the chemical products that were employed as a vaccine was perfect, it was quite possible to cause the appearance of fresh cases through these inoculations instead of checking the spread of the disease.

By the method employed in the preparation of tuberculin such an accident is not possible, for since its virtues are not destroyed by the action of heat of sufficiently high temperature to kill all living bacteria that might have been concerned in its production, this exposure to high temperature forms a regular step in the routine of its manufacture—a step intended to render the material harmless.

Whether we are justified in saying that the active principle of this substance, tuberculin, is the product of growth of the bacilli, or the bacterio-protein of the bacilli themselves, it is not at present possible to say with certainty, as in its manufacture both substances are to a degree spared. It seems reasonable, however, to consider the systemic reactions that appear in tuberculous animals after inoculation with this agent as due, in all probability, to the combined action of both substances.

As we are now aware, tuberculin is the concentrated fluid medium in which the tubercle bacilli have been growing. Its preparation, in short, is as follows: Tubercle bacilli are cultivated preferably upon fluid media to which 6 to 7 per cent. of glycerin has been added. When the culture has reached the maximum of its growth it is subjected to a degree of heat sufficient to destroy all living bacilli. It is then carefully filtered through unglazed porcelain, and the filtrate is evaporated over the steam- or water-bath to the proper degree of consistency.

The statement that tubercle-bacilli have been found in tuberculin, not only in that supplied by Koch, but also in samples from other sources, is perfectly true; but the impression that this statement, stopping where it does, is likely to make upon the minds of those unacquainted with the method of preparing this agent, is by no means in accord with the true state of affairs. The method of preparation of tuberculin, as we have seen, insures the death of all living tubercle-bacilli from which it is extracted by subjecting them during the process to a degree of heat for a length of time quite sufficient to render them inert, in so far as their power to produce tuberculosis is concerned. For this reason it is by no means essential to the safe employment of tuberculin as a diagnostic agent that the fluid be deprived of all these dead and inactive organisms. The only undesirable results that might, and, indeed, would, be very apt to occur, are purely local results—results finding expression in slight suppurative processes at the point in the tissues at which the dead bacilli accidentally present in the tuberculin are deposited. Koch, Prudden and Hodenpyl, Weil, Maffucci, Wissowicz, and others, in their published accounts of experiments with this agent, all call attention to the local suppurations that sometimes occur at the point of inoculation, due, most likely, to the pus-producing properties of the proteid substances composing the bodies of the dead bacteria themselves—a process, however, that is in no way connected with general tuberculosis, and is of itself not of a dangerous nature.

As to the danger of using the milk of cattle that have been inoculated with tuberculin as a means of diagnosticating tuberculosis which is so slightly advanced as not to be recognized by any other means, I think there can be but little fear, and still less from its employment in non-tuberculous animals. This, however, is not the case with the milk of cattle in which the disease is more or less advanced, as has been pointed out by a number of observers, particularly Bang, Tschucca and Ernst. In these cases there is not only danger in the immediate use of the milk, but, by keeping, this danger is increased, because, as has been observed, the bacilli not only retain their life properties, but actively increase and multiply in the milk in which they are located, retaining all the while their disease-producing peculiarities. In a series of experiments performed by me, and published two years ago in the *Johns Hopkins*

Hospital Bulletin, I showed clearly that milk, as it comes from the shops, is an excellent medium upon which to cultivate these organisms. From our present knowledge on this subject, there is doubtless a greater amount of infection through this agent than is ordinarily supposed, particularly in the case of children, who depend so largely upon milk as an article of food. Indeed, several cases of apparently direct infection from the use of milk of tuberculous cattle as food for infants have been published. Where no rigorous control of dairies supplying milk to the market exists, the only safeguard possessed by the public against possible infection through this medium is the protection afforded by sterilization of the milk employed, either by boiling or through the employment of steam-sterilizers.

In regard to butter and cheese, it has been shown by investigations conducted at the Imperial Health Bureau, of Berlin, that tubercle-bacilli may and do retain their vitality in these substances frequently for weeks.

ARRESTED TUBERCULOSIS.

This subject received a large share of discussion in the section of Pathology at the last meeting of the British Medical Association. Dr. J. K. Fowler read an exhaustive and exceedingly interesting paper, which appeared in the *British Medical Journal* for October 31, 1891, and which was based on the post-mortem records of Middlesex Hospital during the eight years, 1879–1886. In that time, 1943 necropsies were performed, and in 177 cases (9.1 p. c.) obsolete tubercle of the lungs was discovered. Of these 177 cases, the majority (110) occurred in males, 67 only having been present in females. The right lung had been the seat of the trouble in 35 cases, the left lung in 36 cases, and both lungs in 106 cases. As a parallel to his own observations, Dr. Fowler quoted the tables of the Vienna Institute of Pathological Anatomy during the period 1869–1879. Out of 16,562 necropsies, obsolete tubercle of the lungs was found 789 times, or in 4.7 per cent. of cases; 509 cases had occurred in males, 280 in females. The right lung only was affected in 69 cases, the left in 65 cases, and both in 655 cases.

These statistics are of much interest, and, although they take us back to days before diagnosis could be confirmed by the discovery of the tubercle bacillus, yet they are the compilations of thoroughly competent observers, and must be afforded due consideration. Several points at once attract notice. The preponderance of the male sex in both instances is very marked, but before concluding that arrest of the tuberculous process is really more common in the male than in the female, we must await further investigation, with more complete data. A surprising feature is that healing occurred much more frequently when both lungs had been affected than when the disease had involved one lung singly. Generally in these instances the apices were alone diseased, but quite frequently the lower lobes were included in the process, so that involvement of these lower lobes must not be regarded as incompatible with arrest of the disease.

With reference to the stage to which the morbid process had advanced before arrest obtained, in 43 out of Dr. Fowler's 177 cases a cavity was present. In the majority of cases the lesion was fibrous or caseous. The cause of death in the cases showing healed tubercle was most frequently cancer. The association of cancer with tubercle is very frequent, although both processes are rarely active at the same time. Next in frequency to cancer, as the cause of death, come respiratory affections, including fresh attacks of tuberculosis. A return of the tubercular disease may be the result of reinfection from without, or of an exacerbation and extension of a process which has for a longer or shorter period remained latent and cut off from the surrounding structures by a pregnable wall of fibrous tissue. At times the arrest in the lung is followed by the appearance of the disease elsewhere, as in the larynx, where, though not offering an immediately unfavorable prognosis, it is constantly liable to reinfect the lung.

The appearances presented by the cured lesions are variable, but generally sufficiently characteristic. Fibrosed pigmented tubercles; fibroid induration with puckering and scarring of the apex, and with or without obvious tubercles; areas of caseation surrounded by fibrous capsules; cretified masses similarly surrounded, and cavities of varying sizes, with smooth thinner or thicker walls of fibrous tissue, are to be included among the more common manifestations of arrested tubercular disease. In these relics of a formerly

active process it is not infrequently possible to demonstrate the existence of tubercle bacilli, cut off from opportunity of carrying on their toxic function by a more or less secure fibrous wall Various deformations of the respiratory tissues may be present, evidencing in some degree the amount of actual destruction which had obtained before the arrest of the disease. Commonest among these changes are classed scarring and puckering of the pleura, pleural adhesions, dilatation of bronchi, compensatory enlargement of other parts of the same lung or of the opposite lung, etc., etc.

Dr. Sydney Martin also contributed a paper on this subject at the meeting of the British Medical Association. For practical purposes he considers that retrograde tubercle of the lungs may be looked upon as occurring in two forms, "calcareo-caseous tubercle," and "fibroid and pigmented tubercle." Out of 445 consecutive autopsies, the calcareo caseous form was observed in 31 instances, and the fibroid pigmented form in 11 instances, making in all 42 cases of retrograde tubercle, or 9.4 p. c. In his cases, too, malignant diseases and respiratory diseases had been the most frequent causes of death. According to Dr. Martin "retrograde tubercle must be viewed as a tuberculous infection which has at one time invaded the body, and for some reason undetermined has remained local, becoming encapsulated with fibrous tissue after the nodule has undergone caseous and calcareous degeneration, or becoming transformed into fibrous tissue before caseation occurs."

Other information on this subject has been furnished by Dr. Joseph Coats (*Brit. Med. Jour.*, October 31, 1891). After careful scrutiny of bodies examined post-mortem, he concludes that about 23 per cent. of persons dying of non-tubercular affections have had some form of internal tuberculosis at one period or another during life. He puts the percentage of deaths in which tubercle (in all its forms) is an active process—though not necessarily directly causative of death—at twenty-two. He therefore makes the somewhat startling statement that "about half of all persons born into the world are at some period of their lives affected with tuberculosis." In illustration of this subject, when addressing the Glasgow Medico-Chirurgical Society, Dr. Coats exhibited a lung in which practically all trace of lung disease had disappeared, leaving simply a congeries of cavities. The process here had been distinctly tubercular, yet healing had obtained after all the lung tissue had been

destroyed and excavated, and a wall of wholesome fibrous membrane lined the cavities which had been produced. The opposite lung in the same case showed evidence of a less advanced tuberculosis which had been arrested.

As illustrative of the process involved in the spontaneous healing of tuberculous disease, Coats considers the most frequent forms as being typed in the cases of (1) the lymphatic glands in the neck, and (2) the mesenteric glands. In the former, an irritant induces the aggregation of inflammatory products and true, typical tubercles, and these undergo caseous necrosis. The caseous mass may remain unaltered, but generally some irritation from outside sources suffices to induce suppuration in the immediately adjacent tissues, the caseous matter softens, an abscess forms and the dead matter and pus are discharged. If the infective virus is completely cleared out, healing obtains. In the mesenteric glands, however, the process rarely goes on to suppuration, as the parts are protected from irritation. Here, instead of softening, a deposit of calcareous matter obtains, and the whole gland becomes converted into a hard, chalky mass. This is the form most frequently met with in the case of healed lung tuberculosis, though the first type obtained in the lung of the case just cited.

Dr. Henry P. Loomis (*Med. Record*, New York, January 9, 1892) adds to our literature another important contribution on this same subject. Out of 763 persons dying of a non-tubercular disease, 71, or over 9 per cent., presented in their lungs changes which he regards as characteristic of healed pulmonary tuberculosis. Almost every stage of the disease could be illustrated by these cases. Dr. Loomis does not think that the phthisis can be said to be absolutely cured unless it is possible to prove the absence of tubercle bacilli. Even a few bacilli remaining in an apparently healed area in the lung, must of necessity always be a source of danger to the individual. Inoculation experiments may prove the persistence of bacilli even after the ordinary tests have failed to reveal their presence.

The results of these investigations are encouraging from every point of view, especially when we consider that hospital statistics are compiled from cases which are most unfavorable as regards the application of hygiene, dietetics and general care. They show, first of all, that tubercle is not a necessarily fatal disease—in fact,

that most cases offer a reasonable hope for cure. They furthermore direct our attention to nature's method of overcoming the disease, and give us an inkling as to the best course we can pursue in aid of the *vis medicatrix*. The distinct trend of the medical investigation of to-day is towards finding nature's cure. We have practically abandoned hoping to cure tubercle by killing the microbe with antiseptics or tuberculin, and are now endeavoring to discover the true significance of *Immunity*. When we have accumulated and formulated knowledge on this secret of nature, we cannot have failed to make a marked step forward.

Being thus encouraged, it behooves us all the more to be constantly on the watch for the earliest manifestations of tubercular disease. Careful and methodic examination of the chest should become almost a matter of routine, and the microscopical search of sputum for bacilli applied to all cases in which an element of doubt exists. The less advanced the process before diagnosis is made, the more confident we may be of the successful application of remedies. Always bearing in memory the liability of a localized disease to become disseminated, it is a matter all-important to neglect no local manifestation of tuberculosis which it may be possible to treat therapeutically or otherwise. This is especially important in instances of tubercular disease of the upper respiratory passages.—*Maritime Medical News.—Abstract by Dr. Hattie Nova Scotia Hospital for Insane.*

THE TREATMENT OF INFLAMMATION IN THE RIGHT ILIAC FOSSA FROM A SURGICAL STANDPOINT.

By John B. Deaver, M.D., Assistant Professor of Applied Anatomy in the University of Pennsylvania, Professor of Surgery in the Philadelphia Polyclinic.

(Read before the John Ashhurst, Jr., Surgical Society, University of Pennsylvania.)

Inflammation in the right iliac fossa, which is the subject I have selected at present to discus, is one which latterly has been written upon very extensively, and a large number of cases operated upon,

both successfully and unsuccessfully, have been reported. The varieties of inflammation in this fossa are, first, inflammation of the connective tissue in the immediate neighborhood of the head of the large bowell; second, the inflammation of the serous covering of the head of the large bowel (cæcum); and third, inflammation of the vermiform appendix. They are technically known by the terms typhlitis, perityphlitis and appendicitis In the majority of cases the inflammation attacks primarily the vermiform appendix, and the tumor or mass consequent upon this inflammation gives rise to the physical condition we detect in the greater number of cases sooner or later. I believe that we meet with cases of both typhlitis and perityphlitis, having had opportunities to verify this on the operating-table. I have divided inflammation in this region into threee varieties, and you will naturally expect to hear me give you the points of differential diagnosis between them. This I am not able to do, and, from a practical standpoint, I believe there are but few instances where it can be done; therefore most of these cases call for treatment upon general surgical principles. Were I to attempt to differentiate I would simply confine myself to the points of difference between perityphlitis and appendicitis, as the signs and symptoms of both appendicitis and typhlitis are so nearly similar that, to my judgment, it is mere guess work attempting to arrive at a differential diagnosis between the two. The points in the history of a case which would lead me to think the trouble was perityphlitis would be, if idiopathic, the history of slow onset with constipation; if traumatic, the history of an injury. In favor of perityphlitis there are tenderness and swelling, more in the neighborhood of the crest of the ilium and of the loin. Here, too, in the latter class of cases, percussion gives a flat note; whereas in appendiceal troubles, if flatness is detected at all at this point, it is not until the trouble is far advanced. In the greater number of appendiceal inflammations the onset is very sudden, likely to follow a heavy meal. The patient is attacked early with pain, which he locates chiefly at the umbilicus. This is followed by nausea and later by vomiting, which, if the case does not yield to active treatment, it becomes impossible to arrest. The bowels are constipated; yet I have seen in the early stages of some cases two or three evacuations, which were evidently from the lower bowel.

If the inflammation is of a high grade it is but a short time until

distention is developed, first confined to the point of trouble and later becoming general. At first there is general tenderness in the right iliac region, which, in my experience, is not concentrated at any one point in the fossa, as has been described by McBurney. Palpation, too, detects very decided resistance offered by the abdominal muscles of the affected side; the latter I regard as an important sign to be considered in the diagnosis. Later on, in many cases, an indurated mass is detected, which in some instances is circumscribed, while in others it becomes rapidly diffused, particularly in the line of the linea alba and of the pelvis. Deep rectal examination I do not regard of much diagnostic importance, at least early in the case. But in those cases where the trouble tends to become rapidly diffused, especially if in the direction of the pelvis, where the appendix is situated, if holding its third position, I regard it of extreme value. As a matter of routine, I make this examination always. To determine the presence of pus, early, by physical examination, is often impossible, granting, of course, that the usual signs of its presence are absent, namely, œdema of the overlying abdominal walls, fluctuation either by palpation through the abdominal walls, or with the finger in the rectum, the absence of rigors or a decided chill, and sweats. Doubtless you will infer that it is difficult to say when the case demands operation. This is governed by the result obtained by well-directed medical means, also by the local and general condition of the patient. If the recently accepted treatment, mild purgation with salines, and the very moderate use of opium, fail to render the patient comfortable, to allay the vomiting, to prevent distention, to produce liquid evacuations, the temperature remaining high or tending to rise gradually, and the local trouble all the while growing more pronounced with increase of tenderness and increase of induration, I at once and unhesitatingly advise operation. Constant retching, increasing abdominal distention, and obstinate constipation, are three conditions, which, if associated, warrant immediate interference.

There are already a sufficient number of fatal cases on record, where the treatment of opium alone, in gradually increasing doses, has been adopted, in preference to operation, to disabuse the minds of both physicians and surgeons of its fallacy.

After refusing to operate on many cases brought into the hospitals in approaching collapse, with the diagnosis of peritonitis con-

sequent upon obstruction of the bowels, with hugely distended abdomens, patients retching incessantly, the bowels not having been moved for four or five days, and death following in from eight to twelve hours, and the autopsies revealing the abdominal cavities flooded with pus, the vermiform appendices perforated if not gangrenous, the coils of intestines greatly distended and matted together by layers of fibrinous lymph, I cannot conscientiously form any opinion other than that the diagnosis was improperly made, or that the attending medical man did not believe in operative treatment, or deferred calling in a surgeon until the golden opportunity was a thing of the past. Under circumstances like the above, the argument, why not operate if the patient is sure to die anyway, is often brought forward. My answer is, that it often requires better judgment to decide when not to than when to operate. I am willing, always, to take desperate chances if there is the slightest indication of the patient being benefited, but certainly not otherwise; and to you, young men, I would say, be progressive, but not too aggressive.

I could cite a number of cases, giving their history and treatment, but I feel that it suffices simply to give you the conditions calling for active interference. I wish you also to understand that where the symptoms and local conditions are relieved by the treatment I have recommended, surgical interference should certainly not be considered.

But recently I have operated on a case of perityphlitis referred to me by my friend, Dr. Charles Styer. In this case the pus having formed in the immediate neighborhood of the cæcum gravitated to the loin, causing œdema of the overlying abdominal walls and giving fluctuation. I opened up the loin, evacuating a considerable quantity of fæcal-smelling pus. As the pain and tenderness of which the patient complained were referred to the cæcum, and notwithstanding the fact that physical examination of this region through the abdominal walls and per rectum to reveal the presence of any swelling, I exposed the vermiform appendix and cæcum by cutting through the right linea semilunaris, this demonstrating very clearly that neither the cæcum nor the appendix was involved in this trouble. This case, as well as many others I have operated upon, demonstrates beyond question of doubt, to my mind, at least, that we meet with *bona-fide* cases of perityphlitis. This being so,

is it not folly to argue that every case of inflammation in the right iliac fossa arising in connection with the bowel going on to pus formation should be subjected to a laparotomy? I cannot but feel that the operation as I describe it is the safest procedure when dealing with trouble in this region.

The technique of the operation for the relief of inflammation of the right iliac fossa consists in exposing first the transversalis fascia, and the subperitoneal fat, in the line of the right linea semilunaris, by a vertical incision, four to six inches in length, the centre of which corresponds to the point where a line, drawn from the anterior superior spine of the ilium to the umbilicus, intersects the semilunar line. The transversalis fascia and the subperitoneal fat having been exposed, if the inflammation is perityphlitic and pus be present, it is readily evacuated, while, at the same time, if the surgeon prefers it, a counter-opening may be made well back in the flank through which a drainage-tube can be introduced, and the cavity thus drained to the best possible advantage, or the operation may be terminated after the manner of Parker. If the mass be intraperitoneal, the overlying peritoneum is taken up between a pair of hæmostatic forceps and incised, when, if an abscess exists, it is evacuated. The abscess having been evacuated and thoroughly washed out, the appendix is sought for, care being taken not to break through the lining wall of the abscess cavity, granting that it is shut off by such from the general peritoneal cavity. Under the latter circumstances, if the appendix is not to be seen, I at once complete the operation by introducing a glass and a rubber drainage-tube to the bottom of the cavity, around which I pack iodoform gauze, after which it can be irrigated twice daily with Tiersch's solution, which, when thrown in through the rubber drainage-tube, will escape through the glass tube, and *vice versa*.

The case progressing favorably, the gauze need not be removed for two or three days. When suppuration is decidedly diminished, the tubes are removed, the cavity washed out and packed with gauze, and in this way healing, which takes place by granulation, is promoted. When the general peritoneal cavity is involved, I make further search for the appendix if it is not seen at the bottom of the wound, bearing in mind its three relations, the most common of which is where it lies behind the terminal part of the mesentery, pointing in the direction of the spleen. The second most common

position for the appendix is where it lies directly behind the ascending colon; and the third, where it laps down into the pelvis. To ascertain whether it occupies the first position, it will be necessary to lift up the cæcum and the ilium at its termination with the junction of the cæcum and the ascending colon, when the retro-mesenteric space will be exposed. When it occupies the second position, it will be necessary to lift up the cæcum and probably the commencement of the ascending colon as well; this may necessitate dividing the external layer of the ascending meso-colon, which is selected in preference to the internal layer, as in connection with the latter are the bloodvessels which supply this portion of the gut. If it holds the third position it is very readily exposed, when it is not uncommon in the female to find it attached to the right uterine appendage. The appendix having been exposed, it is tied off close to the cæcum and cut away to the distal side of the ligature. It has been suggested to invaginate the stump of the appendix into the cæcum, and stitch over it the serous covering of the latter. This procedure I have never had occasion to adopt. In the event of the appendix being ulcerated off at its junction with the cæcum, thus leaving a communication with the latter, if the margin of the opening is not infiltrated to too great an extent to warrant the removal of the diseased part of the bowel, I close it with two or more Lembert's sutures. When the cæcum, by the separation of the appendix, is thus perforated, and its coats very much diseased, I believe it better practice not to attempt to close the opening, but simply to thoroughly drain the wound. My experience has been that the majority of fæcal fistulas of this character close spontaneously, and, where they do not, subsequent operation can be resorted to. I recall one case of fæcal fistula consequent upon suppuration of the appendix, where the abscess, which was believed to have been perinephritic in origin, was opened through the loin, it having distended that space, in which, the day following the operation, the appendix came away through the wound in the loin, as did also the contents of the bowels. The fæcal evacuations continued to go through this opening for some days, but it ultimately healed without operative interference, the child making a complete recovery. The point to be borne in mind in cases of this character is the establishment of free drainage, thus preventing the passage of fæcal matter into the peritoneal cavity. The probabilities are

that in these cases the peritoneal cavity has been shut off from the perforated bowel by inflammatory exudate. This is why recovery so often takes place under such circumstances.

From what I have said regarding the operative technique, you must infer that I disapprove of meddlesome interference, by which I mean, making a prolonged search for the appendix when it is not readily found. I have seen patients practically disembowelled in searching for the appendix, and then it was not found. You probably know enough for the surgery of the abdominal cavity already to have learned that prolonged exposure of the bowels removed from the cavity is attended by profound shock, therefore to be avoided whenever possible. The success of abdominal operations in general depends upon their being done with as much rapidity as possible, granting, of course, that great care is taken in every step of the operation. In work of this character I also disapprove of the introduction of the hand into the cavity, believing that two fingers, the index and the middle, with, in some instances, the assistance of one or two fingers of the opposite hand, are sufficient to accomplish all necessary manipulation. You have seen a sufficient number of cases of laparotomy for the removal of diseased uterine appendages, particularly cases of pyosalyinx, to know that the skilful surgeon accomplishes the removal with but two fingers; this holds good in cases of the character constituting the subject of my remarks.

The after-treatment is very simple, calling for occasional doses of salines to keep the bowels moving regularly once or twice daily, and, if the patient suffers much, a small amount of opium to relieve pain. I do not believe in the exclusive use of salines both before and after operation, but, on the contrary, I give a small amount of opium, being governed, of course, by the amount of pain.

On the other hand, I very much disapprove of giving enough opium to mask the symptoms of the disease. Opium, as is the case with other medicines, must be given with judgment and discretion. Opium has held very much the same relation to abdominal troubles in the past as has bloodletting in the acute sthenic inflammatory troubles. They are both still useful when properly administered. Whereas I appreciate that opium, when not administered very cautiously in these cases, is harmful, yet I do believe that restlessness and sleeplessness will be more hurtful to the patient than a

judicious dose or two of opium. On the other hand, active purgation, by means of drastic cathartics, I equally disapprove of, as I feel that the excessive peristalsis which is certainly brought about by these agents is equally competent to aggravate the local condition.

You will note that I have said nothing about suture of the abdominal wound. This I do not approve of, with the exception of the introduction of one or two at the end of the wound—in other words, I rely upon healing by granulation. The question would naturally arise in your mind—Is not the patient rendered more liable by such treatment of the wound to ventral hernia? I can answer this in the negative.

I adopt the same measures here as I do in the treatment of the wound made for the radical cure of hernia—namely, pack it. I have never had a case of ventral hernia following this plan of treatment.

In my earliest operations for the removal of the appendix, where I closed the wound with sutures, I made a counter-opening in the loins immediately above the crest of the ilium and introduced thorough drainage. With my present manner of dressing I do not consider this necessary.—*University Medical Magazine.*

TRANSPLANTING TEETH.—In a re-perusal of *Watson's Annals*, I find the following, vol. i, page 179, which sounds oddly enough to readers of the present generation: "I have seen a printed advertisement of 1784, wherein Dr. Le Mayeur, dentist, proposes to transplant teeth; stating that he has successfully transplanted 123 in six months. At the same time he offers two guineas for every tooth which may be offered to him by 'persons disposed to sell their front teeth or any of them.' * * * They were, in such cases, two months before they could eat with them. Tooth-brushes were not even known, and the genteelest then were content to rub the teeth with a chalk rag or with snuff; some even deemed it an effeminacy in men to be seen cleaning their teeth at all"—*Ellwood Roberts, in Notes and Queries.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,
GEO. GILLETT THOMAS, M. D., " } Editors.

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THE WILMINGTON MEETING OF THE MEDICAL SOCIETY OF NORTH CAROLINA.

For the first time in twelve years the Medical Society will meet in Wilmington. A hearty welcome awaits them! May is the month of meetings and conventions and commencements, but loyalty to one of these is all that a person can accomplish in justice to his profession. The Medical Society of North Carolina must hold the chief place in the minds of every progessive physician. Her demands upon the time and talents of her members must be paramount. For the profession of the State must remember that now we, in our capacity as a Society, are a part of the executive

machinery of the State. From our body proceed the Board of Medical Examiners and the State Board of Health. There will be an election for two, if not three, members of the Board of Examiners; there will be a large number of candidates to be examined for license to practice medicine, and other business of importance. A large meeting is expected and provided for, and we trust that the contributions of scientific material will be better than ever before.

The programme is being prepared and will be issued within a few days. In the meantime let all members keep in mind that the day of meeting is changed to the **17th MAY**, instead of the 24th, as at first announced.

The hotels will make a liberal reduction of their rates, and the railroads have made the usual concessions in reduced fare.

So far, the Committee of Arrangements have not been informed about the titles of papers to be read, and the programme to be issued can only be provisional.

The election of the President by ballot will be one of the new features in this meeting. It cannot be said that at the Asheville meeting there was an election. The candidates were chosen by acclamation, a practice which is far more to be feared in its results than the private action of a nominating committee. The will of the majority may not be reached in this way, for it may be that the one very popular candidate in going into office with a rush may open the way, in such a time of enthusiasm, to the selection of less desirable candidates. Now the law of the Society requires an election, let us have it, and test the experiment faithfully.

We trust, also, that the Committee on Credentials will see that applications for membership are properly authenticated—a very small blunder in their duties may lead to trouble it would take a long time to overcome.

"CORONERS: MEDICAL AND LEGAL."

In England the discussion is going on and has been renewed from time to time, whether the members of the legal or the medical profession are best qualified to fill the office of coroner. We get

all these suggestions from the *British Medical Journal* (March 26th, 1892), and we quote from the columns of that journal the resolutions of the *Liverpool Medical Institution* as follows:

"Concerning the nature of the coroner's duties, this meeting is of the opinion that they can be more efficiently performed by a medical man who has thoroughly acquainted himself with the legal bearings of medical questions than by any gentleman who has not had the advantage of medical training."

The editorial from which we have quoted the above also gives the following, which is as applicable to this country as to England:

"One very important duty rests with the coroners and should not be lost sight of—namely, that of deciding in the first instance whether an inquest should be held or not. Here, even more than in the procedure of the court, is discovered the relative value of medical as compared with legal knowledge, for the practically irrevocable decision has to be made on the coroner's own discretion, and in the vast majority of cases that decision is founded on his own special knowledge of disease and the causation of death. It is no answer in such cases to urge that the lawyer can command medical evidence, because no medical opinion can be claimed except on the issue of the regular summons to the medical witness, and this can only be done when an inquest is to be held."

In Massachusetts the State is divided into districts, three medical examiners are appointed for each, whose duty it is to enquire into the causes of death in cases which, in other States, fall under the cognizance of the coroner. These examiners make a complete investigation of the bodies of murdered persons and all other enquiries as to the causes of death while they are fresh, thus giving the State the very best initial proceedings for the detection of crime. In that State it is not a question of the fitness of lawyers as compared with physicians to act as coroners, that State having the wisdom to try the experiment of substituting the effete coroner's jury for a best system. That system is passing successfully the experimental stage.

How is it in North Carolina? Bad enough. In Wilmington, the largest town in the State, the coroner is elected by the people. The choice has fallen for years upon a mulatto man, a barber or barber's apprentice, whose one fitness for the office is the respect he pays to the advice of educated white persons, and another merit

being that he at times uses the prerogative of his office and decides that the county should not be put to the expense of an examination. So that at the very threshold of criminal proceedings fanlty administration begins.

Our neighboring town of Goldsborough has had a medical coroner, carrying out the mode of action suggested by the Medical Society years ago. We would like to renew the suggestion that, at the approaching election in the fall, medical candidates for the office of coroner be offered in all the counties. Justice would be subserved if educated physicians filled the offices of coroner throughout the State.

MEDICAL PROVERBS.

(*German.*)

A physician is an angel when employed, but a devil when you must pay him.

Dear physic always does good.

A disobedient patient makes an unfeeling physician.

(*Spanish.*)

What cures Sancho makes Martha sick.

The earth hides as it takes
The physician's mistakes.

He that sits with his back to a draft, sits with his face to a coffin.

Of the malady a man fears, he dies.

He that would be healthy must wear his winter clothes in summer.

(*English.*)

Diseases are a tax upon our pleasures.

A good surgeon must have an eagle's eye, a lion's heart and a lady's hand.

Tender surgeons make foul wounds.

(*French.*)

A physician is a man who pours drugs, of which he knows little, into a body of which he knows less.

REVIEWS AND BOOK NOTICES.

A System of Practical Therapeutics. Edited by Hobart Amory Hare, M.D., assisted by W. Chrystie, M.D. Vol. II. Philadelphia: Lea Brothers & Co., 1892.

This, the second volume of the American System of Therapeutics, discusses Syphilis, Fevers, Diseases of the Respiratory System, Diseases of the Circulatory System and Hæmatopœtic System, and Diseases of the Digestive System.

We commend at once, especially what Dr. R. W. Taylor has to say about the therapeutics of syphilis. To physicians living in communities where the druggists do not monopolize the treatment, especially of the primary stage, as is so frequently the custom in some of the towns in our State, to young physicians who are next in order, favorites of syphilitic patients, do not fail to read what is so carefully written in the article referred to. The intermittent treatment of syphilis, as set forth by Fournier, is emphatically and graphically repeated for the instruction of those who are not familiar with the writings of Fournier. He concludes his article on the intermittent treatment with these words: "My observation from year to year has thoroughly convinced me that the current emasculated, theoretical systems of treating syphilis are dire failures and bring very many patients to discomfort, suffering, disaster, invalidism and death. While some may get through by reason of some lucky chance, I feel very certain (and I make this statement after due thought and observation) that a man in the long run will have a better chance to be cured of his syphilis by the old-time vigorous six-months' treatment of mercury and three-months of iodide of potassium (after Ricord) than he will by the long-spun-out, attenuated courses which have as a watchword the phrase pregnant with ignorance and complaisant indifference, that time and mercury will wear out syphilis." P. 49. If this restatement of an old principle in practice be accepted many physicians will have to take a back track. But we must not be tempted to step aside for striking passages in the various articles contained in this stout volume. The next article, on Scarlet Fever, by the well-known author, Dr. J. Lewis Smith, needs no comment. We quote

a few pithy lines about the use of antipyretics in the diseaee. He says: "Notwithstanding these adverse opinions there is sufficient evidence that two antipyretic drugs are useful in certain cases, so that they may be confidently recommended to the profession. These medicines are aconite and phenacetin. . . . In cases of marked depression phenacetin should be prescribed, in small doses, and carefully watched." P. 198.

There are doctors—some among our readers—who have been practising medicine twenty years, but who have never seen a case of small-pox; but at the rate vaccination is being neglected by them it is sure they will have an opportunity before many years of personal observations, and when they do they can turn to Dr. Welch's article on small-pox with comfort for the instruction it contains. The author for long years has had charge of the Philadelphia Small-pox Hospital, and writes from the fullness of such an experience both as to small-pox and vaccination.

The Republic of Mexico seems nearer to us when we note that the article on Typhus Fever is by Manuel Dominguez, M.D., Professor of Therapeutics in the Medical School of the City of Mexico.

The physician practising in a malarial district would look with interest to the article on Malarial Diseases (by George Dock, M.D.), to ascertain his orthodoxy as to the use of quinine, and the volume would be estimated in accordance; we think our readers will be willing to admit his mastery of the subject without agreeing entirely. He says, for one thing: "The modern explanation of the antimalarial action of quinine is substantially that advanced by Binz more than twenty years ago; that is, that it depends on a poisonous influence over the protoplasm of the organisms which cause the disease; in a word, that it is antiparasitic."

Dr. Jerome Cochrane, of Montgomery, Ala., the distinguished Secretary of the State Board of Health of that State, writes of the therapeutics of Yellow Fever. The opinion of no one man, however versed in the practice among yellow fever patients, would obtain the confidence of the profession, and Dr. Cochran has wisely set forth the treatment among physicians living where this fever prevails. He gives us the Havanna treatment and the American treatment, collected from the clinical work of practitioners who have had to deal with it, and the result is the most satisfactory

presentation of the subject we have seen. The Diseases of the Rectum and Anus, by Charles B. Kelsey, M.D., is largely surgical, as of course it must be to be complete, but such articles could, without any detriment, be relegated to purely surgical works. This volume fairly places this System of Therapeutics before the profession, and we are satisfied that it will meet with marked approbation, taking its place easily by the side of Pepper's System of Medicine. As to typographical excellence, nothing more beautiful could be desired than the execution of these two volumes.

THE PRINCIPLES AND PRACTICE OF MEDICINE, Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D. New York: D. Appleton & Co., 1892. 8vo. 1075 pages.

Ever since the announcement that a Practice of Medicine was in press from the pen of the distinguished professor of that branch in the Johns Hopkins Hospital, the profession have looked forward with interest to the issue of the volume. It has been on our table for a few weeks, and lest our readers should grow impatient by longer delay, we give the result of our insufficient reading.

The volume is essentially a practice of medicine, giving no place to general pathology according to the custom of most authors. A simple but adequate nosological arrangement is adopted, and, under the first section of Specific Infectious Diseases, Typhoid Fever is the first disease treated of. Dr. Osler says that Dr. Gerhard, of Philadelphia, was the first to lay down clearly the difference between typhus and typhoid fever; "his papers in the *American Journal of Medical Sciences* are undoubtedly the first in any language which give a full and satisfactory account of the clinical and anatomical distinctions we now recognize." This will be a new fact to many readers who had it settled in their minds that the profession owed this to Louis, but the quotation is made for the purpose of saying that in this item, as well as in all of the volume, we find our author painstaking in attributing the work of discoverers to the proper persons. It is gratifying to note how large a share of original work was done by American physicians.

Many readers will take the first topic of the book as a gauge of the value of the rest, and if they do so the author will suffer no misjudgement at their hands. In thirty-nine pages the subject has

been condensed, but the student will be satisfied that it is sufficiently elaborate to convey to his mind all that is essential. The consideration of the specific germ of diseases is not so entirely new as to be considered a novelty, but there have been a great many "uncertain sounds" uttered upon the subject, but our author makes us feel that now we may have the assurance of the true relation of germs as far as can be authorized. There is a bacillus constantly associated with typhoid fever, the discovery of which we presume he divides between Eberth, Koch and Gaffky. It fulfills the law of Koch in two particulars: that it is constantly present, that it grows outside the body in a specific manner, but the third requirement, that typhoid fever can be produced by inoculation with these cultures, has not been accomplished. Outside of the body these bacilli retain their vitality for weeks in water. Both Prudden and Ernst have found it in water filters. "It has not been definitely determined whether the constitutional disturbances in typhoid fever depend upon the toxalbumins produced in the growth of the bacilli, though this is in the highest degree probable."

Under the head of Treatment we have this pithy sentence: "The profession was long in learning that typhoid fever is not a disease to be treated by medicines. Careful nursing and a regulated diet are the essentials in a majority of the cases." Indeed, thorough conservatism in treatment is shown throughout the work. In reference to the treatment of meteorism he says that the employment of oil of turpentine was extensively used by the older Dublin physicians, introduced into this country by the late Geo. B. Wood. "The routine administration of turpentine in all cases of typhoid fever is a useless practice, for the perpetuation of which, in this generation, H. C. Wood is largely responsible."

Some diseases are not so fully treated of, as we could desire. For instance, influenza, of which there has been abundant experience during the preparation of the volume, and diphtheria are not up to the standard we had hoped to get. A little over two pages is given to the former and twelve to the latter. No new material seems to be forthcoming upon diphtheria, but it is perhaps our anxiety to have fresh facts leading one to victory over this most fearful enemy of the children, that causes us to feel disappointment. But to our greater dismay, he demolishes the mercurial treatment.

It is not necessary to recite more particulars as to this volume.

It is the work of a clinician who, from the fulness of a large experience, has written just such a volume as the physician needs for daily consultation and study. As a text-book for students it is admirable, and to say that it is the equal of those of Flint and Loomis is a just estimate, although in many particulars it is superior to either. The material is fresher, more comprehensive, and has for its basis a very extensive research in all the more modern lines of thought and study.

A DICTIONARY OF TREATMENT, OR THERAPEUTIC INDEX, including Medical and Surgical Therapeutics. By WM. WHITLA, M.D. Revised and Adaptee to the United States Pharmacopœia. Philadelphia: Lea Brothers & Co., 1892.

This is a stout volume 5½x8¼ inches, of more than 900 pages, treating of practical therapeutics alphabetically arranged by diseases. By reference to our columns our readers will see that there is no lack of books on this subject, indeed, medicine has reacted from a state of therapeutic nihilism of twenty-five years ago to a most prolific outpour of remedies. Many of these books are by masters, and can be relied upon as faithful expositors of the application of every known remedy.

The difficulties of such authorship are very great to a conscientious writer, which we realize when we consider the statement of our author that, although he intended to compass his subject within 50 or 60 pages, it extended to nearly 1,000, with the greatest difficulty of keeping it within its present limits.

We can say of this book that it is safe and conservative. One consulting its pages will not be carried away with the newest discovery of "the coal tar series," or the many "ines" and "blind remedies" which American doctors have obtruded before them daily. The well-balanced practitioner who is not under the dominion of the last new remedy, will be pleased with a volume that everywhere shows judicious estimation of medical and surgical therapeutics. This book can safely be added to the office-table volumes, without the danger of its going out of date before the season is over.

SOCIETY MEETING.

THE BUNCOMBE COUNTY MEDICAL SOCIETY.

The regular meeting of this Society was held at Asheville on April 4th, 1892, the President, Dr. Karl von Ruck, in the chair.

Dr. A. J. Watson read a paper on the treatment of abortion, which will appear in full in a future issue of this JOURNAL. The paper does not deal with other than those cases in which abortion is inevitable, and the author believes that to be the case when there is pain, hæmorrhage and a sufficient dilatation so that the finger can touch the fœtal ball. In the majority of cases, as long as no meddlesome interference is practiced and the membranes are preserved intact, nature will expel the ovum unassisted. Failing to do so, however, the assistance should then be prompt and judicious. Previous to the end of the second month no placenta is formed, and all care must be used to keep the ovum intact. If the membrane has ruptured, hæmorrhage is more troublesome, but after the middle of the second month there is danger of a portion of the placenta being retained should delivery be effected immediately. In such cases the author advises the use of hot douche at a temperature of 120 F., to be continued for at least half an hour, unless we proceed at once to the tampon made of aseptic material, and which, when properly applied, may remain twelve hours. Retention of placenta or membrane the author advises to be removed at once, delay being dangerous, since hæmorrhage and septic infection are likely to occur; under the usual antiseptic precautions, the removal should be made with an ordinary large curette, in the case of membranes, and the placental forceps after two and one-half months' gestation. The patient should be kept in bed for ten days. The author then reported a case of criminal abortion, septic symptoms had supervened when he was called. Under the use of continuous hot water irrigation for three hours the temperature fell from 105° to 99°, the pulse from 120 to 100, and shortly after a partially decomposed fœtus with punctured membrane was expelled.

DISCUSSION.

The President invited Dr. Chittick, of Detroit, and Dr. Ander-

son of Swanee, Tenn., who were present as guests, to take part in the discussions.

Dr. Williams: I do not believe that all cases which present the symptoms of pain and hæmorrhage and dilated cervix will necessarily abort, or that on such account we are always justified in proceeding to empty the uterus. I have seen in my practice quite a number of such cases which yielded to preventive treatment, and the women subsequently went to full term.

Dr. Burroughs: I believe that a placenta exists much earlier than after the second month.

Dr. Fletcher: I cannot agree with the essayist in his advice to use placental forceps for removal of retained portions of placenta. In the cases where the placental forceps can be introduced I find I can also introduce my finger, and I succeed with it much better, having the advantage of the sense of touch, than with the usual cumbersome placental forceps.

Dr. Chittick, of Detroit: I believe that a discrimination should be made between cases where criminal interference brought on the symptoms of abortion, and those which result under ordinary circumstances; the former require prompt action on the part of the practitioner, whereas, in a goodly number of the latter abortion may be prevented by judicious treatment, even if pain, hæmorrhage and dilatation have appeared. In retention of placental portions and membranes of accidental abortion undue haste in their removal is not necessary unless the case is already showing symptoms of sepsis. I would like to call particular attention to the use of the viburnium prunifolium in threatened abortion, and have succeeded in preventing it in a number of cases, when the symptoms of pain, hæmorrhage and dilatation were well marked.

Dr. Whittington: I have only recently met with a case where there was pain, hæmorrhage and dilatation, and where, under the use of opium and viburnium prunifolium the symptoms subsided, and gestation apparently continues, a month having now passed since the occurrence.

Dr. Anderson, of Swanee: I have seen good results from the use of viburnium prunifolium, combined with opium and rest, and consider it a valuable remedy in threatened abortion.

Dr. Watson: In my experience I have never been able to prevent it when that stage of the abortion was reached.

Dr. Whittaker read a paper on the Treatment of Typhoid Fever Thirty Years Ago, in which he showed that the profession in the South depended chiefly upon turpentine and brandy at that time, although some used calomel and others veratrum viride. Under the latter drug the results were especially disastrous, but the Doctor thought so well of the turpentine treatment that he continues it to the present day.

A general discussion followed on the modern treatment of typhoid fever, and turpentine was advocated, especially by Dr. Burroughs, both for its antiseptic as well as hæmostatic properties. Most of the speakers were in favor of a calomel purgative in the early stage of the disease, and the concensus of opinion was that drugs have little influence and that they should be used sparingly, dietary measures and judicious use of stimulants being most important.

Dr. Weaver spoke in favor of the antiseptic treatment with carbolic acid and iodine, and in cases with much fever advocates the use of the cold pack.

Dr. von Ruck called attention to the antipyretic treatment of Brand by the cold bath, which is gaining in favor whenever proper facilities exist for its scientific application.

The Society then adjourned.

Prophylaxis Against Syphilis.—"Personal purity is the prophylaxis which we, as physicians, are especially bound to advocate. Continence may be a hard condition (to some harder than others), but it can be borne, and it is our duty to urge this lesson upon young and old who seek our advice in matters sexual. Certainly it is better, as St. Paul says, to marry than to burn, but if the former is not feasible, there are other altars than those of Venus upon which a young man may light fires. He may practice at least two of the five means by which, as the physician Rondibilés counselled Panurge, carnal concupiscence may be cooled and quelled—hard work of body or hard work of mind. Idleness is the mother of lechery; and a young man will find that absorption in any pursuit will do much to cool passions which, though natural and proper, cannot in the exigencies of our civilization always obtain natural and proper gratification."—*Dr. Osler, Practice of Medicine, p.* 180.

CURRENT LITERATURE.

A CHANGE OF OPINION ABOUT THE NATURE OF PNEUMONIA.

"It can hardly be held that acute pneumonia, in its ordinary manifestations, is a common inflammation; a blood state, either engenderad within or without the body, is absolutely necessary to explain its occurrence. Its main characters are those of a general, and not a local, disease." Again, after comparing the causation of pneumonia with that of typhoid fever and diphtheria, he says: "To sum up this subject, I believe that the evidence at present existing tends to show that pneumonia may arise from miasmatic influences of the pythogenic kind, and that it is very possible that this way be the origin of a large proportion, if not the whole, of the case of acute primary pneumonia."— *Wilson Fox's "Treatise on Diseases of Lungs."—Lancet.*

"A change of opinion has of late taken place as to the nature of pneumonia, which is now almost universally regarded as a specific infectious disease, depending upon a micro-organism. Among general circumstances favoring this view is the concurrence of pneumonia in *epidemic form*, a fact recognized by Laennec and Grisolle. Many house epidemics have been described within the last twenty years. On several occasions I have known two, three, and even four, persons admitted to a hospital from the same house. . . . There are instances on record in which as many as ten residents in one house have been attacked. . . . The *diplococcus pneumoniæ* of Fraenkel is the most constant organism in lobar pneumonia and is now believed by many competent authorities to be the specific agent of the disease."— *Osler's Practice of Medicine.*

"All must admit, however, that as regards the bacteriology of pneumonia there is as yet scarcely sufficient evidence to establish the dependence of the disease upon one specific germ."—*Edwin E. Graham, in Hares' System of Practical Therapeutics.*

Mosler, in *Brit. Med. Jour.*, January, 1891, gave in detail a series of acute pneumonias in a family where there seemed every reason for believing that contagion was the cause of the spread of

the disease. He thinks that the father acquired the disease outside, and it was conveyed in turn to the members of the family through the sputa. Grawitz found in the blood drawn from the lung bacilli resembling rabbit-septicæmia, but neither the pneumobacillus of Friedländer, nor the pneumococcus of Fraenkel. He believes that varieties of poison may give rise to pneumonia, but that the main lesson in the case is the contagiousness, and "the need of the careful disposal of the sputa by disinfection or otherwise."

Sturgis and Coupland, in their "Natural History of Pneumonia," in regard to direct infection, assume a wise reserve qualified with skepticism. The vexed pathological question as to whether the disease is general or local, zymbotic or idiopathic, is approached in a spirit of compromise."—*Sajous' Annual*, 1891.

TOBACCO SMOKING.

The *British Medical Journal* mentions an agitation in favor of the suppression of tobocco smoking, and predicts that the movement will write down the President of the Anti-tobacco Society and his associates as a body of harmless fanatics. "Tobacco has taken its place as meeting a universal taste and conferring a "privilege" appreciated by thousands, and they should address themselves to those excesses of smoking which are manifestly injurious."

[There is little prospect that a crusade against smoking and chewing will be successful, or even make an impression upon those addicted, but the passing generation has seen the habit of snuffing tobacco by the nose pass completely out of existence. The gold and silver snuff-boxes and fragrant tonkas, the social pinch at the street corners, in the parlor, anywhere, everywhere, the loud blast of the well trained nose with thickened and engorged lining "tooted" in church, in public, in private, the nasal tone of voice, only remain in the memories of the boys of the 40's and thereabouts. Is it not possible that we may see as great a revolution in the coming generation?

Tobacco is a tremendous tax on this generation, taxing the pocket and the nervous system; taxing the patience of the abstainers in public places, and the patience of housekeepers. No one can say it does not very great evil, but few are willing to listen with patience to a recital of the objections against it.]

THE USE OF ALUMINIUM FOR FOOD-CONTAINING UTENSILS.

The *London Lancet* gives the results of some investigations as to the uses of aluminium. Culinary vessels and surgical instruments have been made of it. Professor Lunge has instituted some new experiments with results as follows: The action of coffee, tea and beer upon aluminium vessels is *nil* or practically so; that of brandy is extremely slight; the action of acids and acid liquids (wine, sour-milk, fruit juices) is more pronounced, but even in this case, he says, far too slight to cause any alarm whatever. Taking the worst case, that of acetic acid, he found a maximum attack of less than five milligrammes per 100 sq. centimeters in six days, and a canteen holding a litre, and having on its inner surface about 600 sq. centimeters and an aluminium weight of about 200 grammes, would in the very worst case lose 5 milligrammes in a day, or one gramme in 200 days, even if it were always full. At this rate only in 55 years would it be reduced to half its weight.

Finally, he declares that aluminium may without any fear be employed for canteens or any other vessels used to hold articles of food, at least at ordinary temperatures.

REACTION OF URINE WITH ETHER.

Dr. Andrew H. Smith, of New York, gives in the *London Lancet*, March 26th, a new observation upon the reaction of urine with ether. If urine, taken promiscuously, be thoroughly agitated with ether in a test tube, there will result, in most instances an abundant white foam. If now the tube be corked and set aside, this foam rises to the surface and gradually condenses into a greyish gelatinous plug, so firm that the tube may be inverted without disturbing its contents. Pending a thorough chemical investigation as to the nature of the substance thus separated from the urine, he finds that the reaction takes place in urine that gives no reaction for albumen or peptones. It occurs in urine from which the phosphates have been removed, and it cannot be obtained with simple solutions of urea or the urates. It is most abundant in the urine of those who

have a good appetite and good digestion, and is usually absent after long fasting, or when the diet is greatly restricted. From this fact it probably represents an excess of nutritive material taken into the blood and thrown off by the kidneys, and not a product of disassimilation.

PREVENTION OF MAMMARY ABSCESS.

Tarnier insists upon women being kept very clean in childbed. Their hands must be washed, else the nipple may be contaminated by a finger that has just touched the vulva. The nipple should be washed both before and after every act of suckling, with water that has been boiled, or with a solution of boric acid. The washing must be done with clean lint or sterilized wool, and not with a sponge. The preliminary washing is necessary, as there might be microbes on the nipple, and the child's mouth might transfer them to a minute fissure, frequent on the nipple after delivery. The second washing removes from the nipple all milk which, if left there, might become a breeding ground for germs, and thus set up abscess, or infect the child's mouth and cause aphthæ. Professor Tarnier takes a stronger precaution in his wards. Every woman has her breasts dressed, as a preventive measure, with a compress soaked in a 1–5000 sublimate solution, held in place by strapping, as the pad is likely to slip; a band of gauze is passed round the thorax and wound around the breasts, so as to envelop them completely. There were, in consequence, only two cases of abscess of the breast from November 1, 1889, to July 15, 1890, and in both the mammæ were, for different reasons, neglected. This application of sublimate cannot possibly hurt the fetus. A syphilitic infant can safely take 5 minims of Van Swieten's solution. The equivalent of that dose in a 1–5000 sublimate solution would be 25 drops, and a child suckling a breast dressed as above described could hardly swallow a trace of the mercury.—*Journal des Sages, Brit. Med. Jour.—Archives of Gynecology, Obst. and Pediatrics.*

PIPERAZANE is being pushed by the advertisers in the druggists journals, selling for 80 cents a drachm. A dear chemical to use for experiments. It takes 15 grains for a day's dosing.

THE PATHOLOGY OF PNEUMONIA.

The pathology of pneumonia is one of the *quæstiones vexatæ* of medicine. The disease has so many points of resemblance, on the one hand, to the specific fevers, and, on the other, to acute pulmonary affections, that the determination of its true pathological relations is a most difficult and complex problem. The question at issue becomes still more interesting when we remember that, not only has pneumonia been a puzzle to the pathologist, but its treatment has been one of the great controversies of therapeutics. We naturally turn for light on these subjects to such a work as the exhaustive "Treatise on Diseases of the Lungs and Pleura," by the late Dr. Wilson Fox. "Two opposite theories," the author informs us, "have been advanced regarding the origin of pneumonia, both of which are supported by certain facts and opposed by others—(1) That pneumonia is a 'specific' fever, of which the disease in the lungs is only a local effect; and (2) that it is a purely local disease, of which the pyrexial and other phenomena observed are only the immediate consequences." In favor of the first view are the following facts: (*a*) negatively, the absence in a large proportion of cases of any discoverable cause likely to excite inflammation of the lungs, and (*b*) positively, the suddenness of the onset of the disease, its well-defined course, its occasional epidemic and contagious character, the presence of bacteria in the blood, and the frequent appearance of a cutaneous affection (herpes), possibly analogous to the rush of the exanthemata. A point corroborative of the above is the well known want of synchronism between the clinical progress of the case and the pulmonary condition. Thus, it is very common for the temperature to fall to normal and all the symptoms to abate, while the physical signs of pulmonary consolidation remain practically unchanged. Less frequently, but still not very rarely, the consolidation may show signs of resolution before there has been any abatement of the clinical symptoms.

The above evidence seems strong, and if we confined our attention to it we might conclude with some confidence that pneumonia must take its place among the "specific" diseases. But, unfortu nately, there are some points of great weight that tell against this view. Thus pneumonia is only very exceptionally epidemic, and its contagiousness, although held by some good observers, is still

doubtful. Again, the influence of season is very apparent. The preponderance of pneumonia falling in the months from January to May. It might be urged, in reply to this, that just as pneumonia shows a preference for the late winter and early spring, so typhoid fever inclines to occur as an autumnal disease. But it seems impossible to resist the evidence that the frequency of pneumonia is much influenced not only by season, but by weather, cold winds and sudden changes of temperature predisposing to it. In this regard pneumonia shows an affinity with pulmonary disease and other affections that are admittedly due to "chill." Then, again, while there is often a want of synchronism between the physical signs and the symptoms of pneumonia, we have to recognize, on the other hand, such a fact as the greatly increased mortality which attends bilateral, as opposed to unilateral, pneumonia.

In so far as treatment throws any light on this subject there are facts on both sides. The general stimulant treatment of pneumonia, now almost universally adopted, hardly differs essentially from the treatment of the continued fevers, and is obviously adapted rather to the theory that pneumonia is a "specific" disease than to the belief that it is a local inflammation. On the other hand, local applications to the chest in the form of poultices, icebags, etc., have enjoyed much favor, and have been believed by some authorities to influence the progress of the disease. Stimulating expectorants, again, generally play a considerable part in the therapeutics of pneumonia. Summing up the subject, William Fox wrote: "The theory of a 'specific' cause can scarcely be maintained for pneumonia in the same sense as that in which the term is employed for the contagious pyrexial diseases. The causes of pneumonia are manifold, and the disease may originate under such diverse conditions that it seems impossible to attribute it to any single blood poison. On the other hand, the most probable hypothesis to explain its origin is that of an altered composition of, or the existence of some morbid material, in the blood, which, from its special qualities, may affect a particular organ, or, as is more probable, may, under local predisposing causes, excite inflammation in that part of the system which in any given individual is the most liable to suffer, as a *locus minoris resistentiæ*." We have no knowledge of the nature of the changes in the blood that predispose to pneumonia. The excess of fibrine that has been described has been shown by Virchow to be

the consequence, rather than the cause, of the pulmonary inflammation. In some cases, no doubt, pneumonia is due to septicæmia, but this is not at all probable of the typical acute disease.

It is rather a curious circumstance that while theoretical considerations and clinical evidence seem at present inadequate to fix definitely the pathological relations of pneumonia, the response of pathology and bacteriology is also somewhat equivocal. It is true, that the researches of the bacteriologist of late years have considerably advanced our knowledge of this part of the subject. From them we learn that the microbe most constantly present in pneumonic exudation, and in that of the inflammatory affections with which pneumonia is often complicated, is the diplococcus discovered by Fraenkel and Weichselbaum; whereas Friedländer's bacillus, like some other microbes occasionally found in pneumonia, is of exceptional occurrence. Nor must the remarkable investigation of the two Klemperers upon the toxines of the first-named organism be lost sight of, as affording additional proof of the specificity of the disease. Nevertheless, when all these contributions to knowledge are collated, it would still seem that much remains to be done before we are in a position to conclude that bacteriology has said its last word regarding pneumonia.

According to Wilson Fox, "the disorder which, on a lesser scale, presents the greatest analogy with acute pneumonia is perhaps acute tonsillitis, where we have the same short initial stage, a similar intensity of rigor and prostration, a similar sudden invasion of pyrexia, and a similar rapid decline of this before the local inflammation has shown any signs of abatement. In tonsillitis, also, we have frequently an equal difficulty with phneumonia, in verifying a distinct cause, and a certain amount of evidence at least exists in the case of the so-called 'hospital sore-throat,' that it may also be produced by other poisons than those originating within the system from the impeded exercise of the function of the skin." It will thus be seen that the pathology of pneumonia remains a question *sub judice*, but that the best authorities incline more and more to the specific theory of its origin. — *The Lancet.*

CORRESPONDENCE.

THE VALUE OF THE CURETTE: A RESPONSE TO DR. J. O. WALKER'S ARTICLE.

HIGH POINT, N. C., April 14, 1892.

Messrs. Editors North Carolina Medical Journal:

DEAR SIRS:—In the March number of the JOURNAL is an article by Dr. Walker, of Randleman, N. C., on the use of the curette, with a report of three cases of retained placenta, all of which he attributes to the use of the instrument several months prior to, and in one case two years before, conception took place. After briefly commenting upon the use of the curette, he gives it as his opinion that it causes retained placenta, and invites the profession to give expression upon the subject.

Having always been an advocate of the curette as an instrument of untold value in diseases of the endometrium, I take the liberty to oppose the doctor's views, and insist that the judicous use of the curette will lessen the trouble referred to.

The only reason given by the Doctor to sustain his belief that the use of the curette causes retention of the placenta is that he has had three cases in the last twelve months, neither of which, it seems, was attended in the delivery of the child by himself, and how does he know but what the complication was the result of an incompetent midwife or doctor, who preceded his arrival, and perhaps the liberal use of fluid extract of ergot *per orem*, or ergotine hypodermatically, before the third stage of labor was completed. The fact that he has seen three cases of retained placenta during the past year is no argument against the utility of the curette, but rather an evidence of faulty knowledge of obstetrics on the part of some one.

Mundé, Polk and many others who have curetted the uterus hundreds of times, make no mention of having met with this trouble. The gentleman's pathology is certainly wrong, and he has no authority for it anywhere. He has overlooked the fact that thus, in the cases mentioned by him the curette was used (in two of them, at least,) for the very condition which he complains was caused by

the curette—retained placenta. In other words, the cause which produced retention was present *before the curette was used.* How, then, can he attribute the retained placenta to the use of the curette?

Let us see for a moment what influence the curette has on a diseased endometrium. We have a patient who comes to us with a history something like this: Six months ago she had a miscarriage; since that time she has had irregular hemorrhages (metrorrhagia), and between the periods of bleeding a leucorrhea, pain in the small of the back, and a weighty feeling in the pelvic region; we place the patient before a good light, pass the speculum, and what do we see!—a congested cervix, an os twice its normal size and very patulous. The sound is passed, and we find the wound to be from one-half to one inch too deep and discharging a thick, tough, semi-opaque substance, showing that the fundus is in a similar condition to what we find the cervix. Now, what is going to relieve this patient quicker and more completely than the curette? If the Doctor knows of a better procedure I would like for him to propose it.

By the use of the curette we not only remove the diseased mucous lining of the womb, but by its application the lymphathic glands, which are large and well developed, and form the base of the mucous lining of the uterus, are stimulated, and a physiological condition is established which will be better adapted for the attchment of a placenta than where conception takes place with the womb in a diseased state and less danger of a retained placenta following delay.

The Doctor speaks of the interior of the uterus being left in a rough, raw-like condition after a curetting. That is true to a certain extent, and a similar state of things is present after each menstruation; and, while I admit that nature would be more gentle in her operations than the average physician in this curetting process, by proper precaution there would be no injury done to any part of the endometrium, and recovery would be almost as rapid from the operation as from a menstruation.

He speaks of the uterus being left in such a condition that it secretes mucus and perhaps pus. Mucus is the natural secretion of the womb, and where pus follows a curetting there was bad, or no, antiseptic precautions taken. I hold that there is no procedure that

can take the place of the curette in saving life and restoring a woman to health, who has a diseased endometrium, that causes pain and frequent hemorrhage.

A case or two in point will suffice to prove the good accruing from the use of the curette :

Case 1.—Mrs. A, mother of two children, sent for me October 25th, 1891; she stated that two weeks ago she had severe pain in the lower portion of the abdomen and considerable hemorrhage; the pain and hemorrhage had kept up irregularly during the two weeks, but not so bad as at first, until the date of my visit. At that time the hemorrhage was profuse. On passing my finger to the wound, I found it filled with something that I could not detach and remove; the patient was placed before a good light and a bi-valve speculum passed, I at once recognized the mass to be the remains of a miscarriage, and by carefully passing a pair of long dressing forceps into the womb, I removed the mass almost in its entirety. The os was very patulous, and without the aid of an anesthetic I curetted the entire uterine surface and mopped it out with a strong solution of compound tincture of iodine. The hemorrhage stopped at once and the womb contracted firmly before the operation, the patient's temperature was 104, pulse 120; two hours afterwards all pain was gone, temperature normal and pulse 100. The patient made a complete recovery.

Case 2 —Mrs. J., of a neighboring town, mother of one child, came to me November 12th complaining of irregular hemorrhages and pain in region of womb. I suspected that she had had a miscarriage, and so stated my belief to her, but she denied anything of the kind.

Being a lady of average intelligence, I accepted her statement and prescribed according to the symptoms without making an examination. I heard nothing more of the case till December 24th following, just forty-two days, when I was sent for to see her. I learned that she had been having irregular discharges of blood from the time of her visit to the office till the date of my visit December 24th. She had changed from a healthy-looking woman of 140 pounds to an emaciated, bed-ridden invalid. She was suffering considerable abdominal pain with severe tympanitis and an elevation of temperature of several degrees and frequent pulse. I made an examination and found the os closed, but the womb several

times larger than normal and the vagina was filled with offensive fluid, in character like cane juice. Being satisfied that there was something inside the womb that was doing my patient harm, I placed a tampon of cotton saturated with glycerine and boracic acid firmly against the os and directed her to let it remain until I saw her the next day or the pain became severe. At 4 o'clock next morning I was called to see her because of the pain. On examination I found a mass of membranes and placenta protruding from the os. I removed them at once and used the curette till everything was well cleared from the uterine cavity, and then used carbolic acid to the endometrium. The patient was then put to bed and had an uninterruped convalescence.

Without further expatiation on the article referred to, or the citing of other cases to prove my position, I will close by quoting from an article read by J. W. Long, M.D., before the North Carolina Medical Society at Oxford May 27th, 1890, which so well accords with my views that I trust he will pardon the citation :

"The curette is one of the most highly prized instruments that I possess, for, besides the numerous indications for its use in the non-puerperal state, labor and abortion are of such everyday occurrence and each case being liable to such grave complications of hemorrhage, infection and retention of the products of conception, there is a pressing necessity for some means by which we may 'become master of the situation.' In the curette we have a therapeutic resource that is not only efficient, when properly and judiciously used, both as to time and subject, but is convenient, easily applied and safe."

And will not increase the number of retained placentas.

Very truly yours,

D. A. Stanton, M.D.

A Plea of Insanity.—At a recent trial in Wisconsin, at which a number of men were indicted for murder on account of having taken part at a lynching case, the jury returned a verdict, finding that at the time of the lynching all of the defendants were insane, and therefore not guilty. They also found that since the crime was committed all but three had recovered their sanity, and were therefore discharged from custody.—*Boston Med. and Surg. Jour.*

CURRENT NOTES.

The Coming Meeting of the Medical Society—Some Welcome Visitors.—Dr. Landon C. Gray, of New York, and Dr. William B. Pritchard, now of the same city, but a member of the Medical Society of North Carolina, will be with us at the Wilmington meeting. These gentlemen are both coming for a vacation and a social visit, but we trust they will not come empty handed. The reputation of Dr. Gray as a teacher and author in diseases of the nervous system is known far and wide. Dr. Pritchard is of our own medical family, and it is not in good taste to give his status. We welcome them both to Wilmington!

For Bronchitis.—Chief among the expectorants in our day ranks apomorphine: A good prescription for a child is [and in a large dose for children]:

℞.—Apomorphinæ hydrochlorat.....gr. ss. to gj.
Acidi hydrochlorici diluti.....gtt. x.
Syrupi.....f ʒ ss.
Aquæ menthæ piperitæ.....f ʒ iss.

Sig. A half teaspoonful every two hours.

—Dr. J. T. Whittaker in *Hare's System of Pract. Therap.*

Galen as a Teacher—Profession in Rome.—Galen was distinguished as a teacher as well as a practitioner; indeed, then as now, reputation as a teacher assisted in gaining practice, perhaps even more so at that time, as the lectures and the displays of surgical operation seem to have been of a more public nature. Puschman says of Galen: "In order to become known there [in Rome] he gave public lectures on the structure and functions of the human body. The interest of the subject and the practical knowledge of the lecturer, soon attracted a numerous audience composed of representatives of the most distinguished circles of the capital. Amongst his hearers were men in influential positions, such as the philosophers Eudemus and Alexander of Damascus, the prefect Sergius, the consuls Boëthus and Severus, who afterwards mounted the throne, and Barbarus, the uncle of the Emperor Lucius. In this way Galen succeeded, within a short time, in obtaining a

profitable medical practice." (*History of Medical Education*, London, 1891, p. 95.) [Medical Profession in Rome.]—They will say or do anything to curry favor with the multitude; they will also flatter and favor; in the towns they will daily salute wealthy and influential persons, walk alongside of them, take them to their houses, give banquets, and behave themselves like buffoons. Others, not only in this manner, but also by the gaudiness of their clothing and their rings, by the splendor of their silver vases and by the troops of followers accompanying them, endeavor to dazzle fools and show that they are persons of tremendous importance and men to be imitated. (Kühn, vol. xiv, p. 600.)

Dr. Roberts Bartholow has lost his reason, concerning which the *Times and Register* says: "With the deepest regret we learn that the doors of the Insane Asylum have closed upon Roberts Bartholow. What an ending for such a life! To the very last no evidence of mental alienation appeared in his lectures or his writings. The habit of a lifetime's assiduous labor carried him along in the well-known grooves, although outside of them his malady was easily discernable. Hard work, no rest, no Sabbath, no vacation; by such means his powerful intellect carried him to the forefront of his profession; but at last outraged Nature reached her limit of endurance and the break-down was complete."—*Toledo Medical Compend.*

Immunity and Cure.—F. Klemperer (*Berl. klin. Woch.*, March 28th, 1892) says that the possibility of curing infective disease in animals by the injection of blood serum of protected animals was first demonstrated for diphtheria and tetanus, and has been more recently proved for the pneumococcus infection, swine fever, and the infection with the pyocyaneus. Klemperer has now obtained similar results for the bacillus of mouse septicæmia and for Friedlander's bacillus Mice are peculiarly susceptible to the former micro-organism, and rabbits much less so. Blood serum from the rabbit cannot cure the disease in mice. If the rabbit's ear be inoculated with the bacillus of mouse septicæmia, an erysipelatous inflammation occurs, and the animal is thus made immune against further inoculation with the same poison. With the blood serum from such a protected rabbit, mouse septicæmia may be cured if the treatment be commenced within twenty-four, or even forty-

eight, hours. Mice so cured are immune against the same infection, but not against infection with other micro-organisms. Klemperer obtained the same results with Friedlander's bacillus, to which mice are again very susceptible, and rabbits but slightly so. Thus the effects of such serum is a specific one. Immunity is conveyed from the protected animal to the diseased one. The main thing lies in the rapidity with which this immunity may be brought about. It may take long to establish immunity in the first instance, but when it is conveyed by the serum, ready-made chemical substances are transferred to the animal in question. The cure by such serum is only a further development of immunity. The serum of artificially protected animals is alone of service, and not that of the naturally immune. Views differ as to whether the immunity is brought about by the antitoxic or bactericidal properties of the serum or by the action of cells, especially leucocytes (phagocytosis), but most are agreed that chemical substances formed the foundation of immunity. There are no formed elements in the serum. The proof of the existence of these chemical substances is only a physiological one. The greater the number, the stronger the immunity. Natural immunity is feeble.—*Brit. Med. Jour.*

THE LAW REGULATING THE PRACTICE OF MEDICINE AND SURGERY IN VIRGINIA, AND JUDGE WITTS' DECISION IN THE CASE OF THE QUACK, R. C. FLOWER, "M.C."—Under this caption in *Practice* we find an article giving the details of the action of the Board of Examiners and its friends in the case of flagrant violation of the law. The case was that of a "faith-healer," who lit upon Richmond and fleeced its gullible citizens of large sums of money. The Virginia Board of Examiners made a strong fight, employing lawyers to prosecute the open violator of the law, but the judge of the Hustings Court decided that the law did not apply to a temporary sojourner. It is not true, then, that the licensing law was pronounced unconstitutional by the Supreme Court of Virginia, for, in fact, "the Commonwealth cannot appeal in criminal prosecutions." We get our information from *Practice* of March, and we believe that this case will increase the zeal of the profession of Virginia to work for such amendments as will make their law perfect. The failure of the Virginia law, then, is true only as to Richmond and to the itinerant (so-called) doctors. The

opinion of the Richmond judge might not be coincided in in Manchester or Fredericksburg. There is no doubting one thing, though, that such itinerants know where there are good pickings, and address themselves only to those towns.

A GERMAN EDITION of the seconds revision of Gowers' book on the Nervous System has just been published by Cohen, of Bonn, and we understand that an Italian translation is nearly ready.

EXODINE AND QUICKINE.—According to the *Pharmaceutishe Zeitung*, Exodyne, an American antipyretic, an analysis of which was made by Dr. F. Goldmann, contains approximately 90 per cent. acetanilide, 5 per cent. sodium salicylate, and 5 per cent. sodium bicarbonate; alkaloids could not be detected in this mixture. Quickine, an American antiseptic, is said to contain one part carbolic acid and 0.02 parts mercuric chloride in 1,000 parts of a mixture of alcohol and water.—*Boston Med. and Surg. Journal.*

PRESCRIBING CLERGYMEN.—Guileless clergymen have been frequently charged with supporting patent medicines with their testimonials, but, according to the *Medical Fortnightly*, March 15, 1892, they are now assuming the rôle of physician. The *Fortnightly* remarks: "One of the leading physicians of our sister city, St. Joseph, complains that two ministers of that city, being possessed of more or less medical education, are combining medicine and divinity, and prescribe for the bodily as well as the moral ailments of the members of their respective flocks. Clergymen should find enough to do to attend to the duties usually performed by the members of that profession, and should leave the body to the doctor of medicine, confining their ministrations to the immortal parts of man."—*Medical Age.*

THE PADDOCK PURE FOOD BILL.—This bill, which seems to have some chance to become a law, has some good features, which on first reading would appeal to the judgment of those who are interested in the regulation of the sale of food and drugs. How it would work is quite another matter, and only the actual test of it would answer that question. By the terms of this bill the inspection and analyses to establish fraudulent admixtures, misbranded goods, or foods or drugs below a certain standard, is to be under

the Secretary of Agriculture, and by the chemical division of his department. The sixth section of the bill defines some of the forms of adulteration :

Section 6. That for the purposes of this act an article shall be deemed to be adulterated—

In case of drugs :

1. If when sold under or by a name recognized in the United States Pharmacopœia it differs from the standard of strength, quality, or purity, according to the tests laid down therein.

2. If when sold under or by a name not recognized in the United States Pharmacopœia, but which is found in some other pharmacopœia or other standard work on materia medica, it differs materially from the standard of strength, quality or purity, according to tests laid down in said wark.

3. If its strength or purity fall below the professed standard under which it is sold.

4. If it be an imitation of and sold under the specific name of another article.

In the case of food or drink :

1. If any substance or substances has or have been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength, so that such product, when offered for sale, shall be calculated, and shall tend, to deceive the purchaser.

2. If any inferior substance or substances has or have been substituted wholly or in part for the article, so that the product, when sold, shall tend to deceive the purchaser.

3. If any valuable constituent of the article has been wholly or in part abstracted, so that the product, when sold, shall tend to deceive the purchaser.

4. If it be an imitation of, and sold under, the specific name of another article.

5. If it be mixed, colored, powdered or stained in a manner whereby damage is concealed, so that such product, when sold, shall tend to deceive the purchaser.

6. If it contain any added poisonous ingredient or any ingredient which may render such article injurious to the health of the person consuming it.

7. If it consists of the whole or any part of a diseased, filthy, decomposed or putrid animal or vegetable substance, or any portion

of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or of an animal that has died otherwise than by slaughter; *Provided*, That an article of food or drug which does not contain any added poisonous ingredient, shall not be deemed to be adulterated in the following cases:

The bill is so worded as to exclude from the prying eyes and chemical scrutiny of the Department of Agriculture the articles in which there is more clear swindling than in any other—the proprietary medicines. We presume this would be impossible, as the wealthy proprietors of two or three of the well-known nostrums could organize a lobby that would bring the friends of the bill to terms in short order. We think it would be well to place such a movement under the scrutiny of two or three bodies not mentioned in the prospectus sent us, and mature it more completely before it is made a law.

The *Pharmaceutical Record* says:

"Yet nothing can be conceived of more cumbersome, more mischievous, more invasive of the rights of the States than the enormous and expensive establishment which, under the modest name of a "food section of the chemical division," the authors of this bill are conspiring to create. It contemplates a supervision of the entire interstate commerce of the United States, so far as it applies to the foods we eat and the beverages we drink—a supervision that would necessitate the employment of a grand army of spies, informers and inspectors, ready to be bought or sold as occasion might offer, and that, if sought to be carried out, would lead to endless litigation between Federal and State authorities. Legislation of this character Congress had better let alone. The Government has gone far enough in the direction of bureaucracy and its attendant corruptions. The country has enough of patriotism already. The States are able to take care of their own food and drink without the help of the Federal power. They can get along well enough without the tags and labels and certificates of the Agricultural Department. The House of Representatives will best serve the welfare of its collective constituency by leaving the bill where it is or consigning it to an early death."

THE STATUE TO DR. J. MARION SIMS.—The New York *Medical Record*, April 16th, says that the bronze statue to Marion Sims has

arrived in New York. It is a full-length figure, nine feet high. It awaits the inspection and approval of the Committee on Statues of Central Park. The *Record* says of it: "The sculptor Ferdinand V. Miller, of Munich, Bavaria, has not only succeeded in making a life-like picture of the distinguished gynecologist, but has given an artistic grace to the pose which will challenge criticism. The pedestal, which will be of granite and eight feet in height, has been especially designed by the same artist, to be in harmony with the lines and purposes of the figure. It is expected that the monument, as a whole, will be completed and placed in its position within the present year, as a lasting tribute to the subject by the members of the profession of this country and other parts of the civilized world."

HEATH ON THE TREATMENT OF THREAD WORMS.—When the last few years the views about ascarides have a great deal altered. It used to be thought that they lodged entiaely in the rectum, and that the patient could be cured by copious enemata, usually of salt and water. But it has been shown within the last few years that this is not a fact, and that these ascarides have their habitat mainly in the cæcum, and are to be found, more or less, throughout the whole length of the large intestine. It must, then, be borne in mind that it is not sufficient to attack the rectum with enemata, but purgative medicine must also be given which shall act upon the cæcum and clear away the worms themselves and the mucus in which they are lodged. You may often see them coming away in large balls as the result of purgative medicine, and until they are thoroughly cleared out you cannot hope to cure the patient.—*British Med. Jour.—Medical Chronicle.*

ALLINGHAM'S OINTMENT FOR HÆMORRHOIDS.—

℞.—Bismuth. subnit. . . . . ℥ j.
Hydrarg. chlor. mit. . . . . ʒ ij.
Morphinæ . . . . . gr. iij.
Glycerini . . . . . ʒ ij.
Vaselini . . . . . ℥ j.

M. Sig. Use in pile-pipe. —*Med. and Surg. Reporter.*

WARMED ETHER AS AN ANESTHETIC.—The *N. Y. Med. Journ.* notes that a Barcelona surgeon has devised a plan for administering ether kept at 87° F.

NEW DRUGS (?)—CINERARIA MARITIMA.—In a list of new remedies mentioned in the *Medical News*, we notice that our old friend the "dusty miller" (Cineraria Maritima) has been put on duty again, to cure, by its juice, cataract. Is not this robbing the therapeutic graveyard?

THE second annual meeting of the American Electro-therapeutic Association will be held in New York October 4th, 5th and 6th, 1892, at the New York Academy of Medicine, 17 West 43d street.

W. J. MORTON, M.D., President. H. R. BIGELOW, M.D., Secretary.

HINTS TO YOUNG MEN.—A very valuable and interesting little pamphlet with the above title has been issued by the University. It contains practical suggestions how to get an education, what to study, and how to become speedily fitted for law, medicine, journalism, teaching, business or agriculture. Any one can obtain a copy by addressing President Winston, Chapel Hill, N. C.

PURIFYING CHLOROFORM BY PICTET'S METHOD OF FREEZING.—Pictet's method of purifying chloroform by freezing, claiming that thereby all impurities were removed from it, has been on trial in London. As predicted by the able editors of the *American Druggist*, some months ago, purification by this method is a failure. There are always good brands of chloroform on the market, equal, if not superior, to that purified by the congelation process.

THE PROPER PURGATIVES IN INTESTINAL DYSPEPSIA.—It is, of course, only the milder laxatives, and such as disturb digestion the least, that are to be thought of. Rhubarb, senna, aloes, sulphur, cascara, magnesia, are among the best. A favorite combination is equal parts of pulverized rhubarb and cardamom seeds; dose, a teaspoonful. Germain Sée prefers the old formula of sulphur, cream of tartar, and magnesia, of each equal parts; Dujardin-Beaumetz, the compound licorice powder. The aloin, strychnia, belladonna, and ipecac pill is an excellent one. "The remedy, says Dr. G. B. Wood, "which we have found most effectual in the permanent cure of a disposition to the accumulation of flatus in the bowels, is an infusion made with half an ounce of calumba, half an ounce of ginger, a drachm of senna, and a pint of boiling water, and given in the dose of a wineglassful three times a day."—*Boston Medical and Surgical Journal.*

OBITUARY.

Theophilus Redwood, Ph.D, F.C S.

The death of this eminent pharmaceutical chemist will be received with regret by all in this country who have followed his useful career as a teacher. His work was especially in the department of pharmacy, but it was pioneer work and substantial work. He was born 1806 in Goverton, England. In 1844 he was made director of the chemical laboratories of the Pharmaceutical Societies and was afterwards made professor of the amalgamated chairs of Chemistry and Pharmacy. He is better known in this country as one of the authors of a Manual of Practical Pharmacy, in conjunction with Professor Mohr, of Coblentz.

Sir William Bowman, Bart., F.R.C.S., F.R S., LL.D., M.D.

The death of this great man, which took place March 29th, reminds us how long a period of usefulness his life has spanned. He was born in 1816, and was consequently 76 years of age. His habits of careful investigation were early recognized, for as demonstrator of anatomy at King's College Hospital, he could not content himself with the gross anatomy as then taught as the whole of that branch, but went into the microscopic study of the tissues. Fifty years ago he had a world-wide reputation for his description of the structure of the kidneys.

In his earlier life he was known to American physicians as a physiologist. Afterwards his fame was established in Ophthalmology. Upon the decline of the health of Dalrymple and his resignation at Moorfields, Mr. Bowman addressed himself to the surgery of the eye. In this department he achieved great fame as a writer, and as a delicate operator.

Some of his principal works are: "On the Minute Structure and Movements of Voluntary Muscles"; "Observations on the Minute Anatomy and Fatty Degeneration of the Liver"; "On the Structure and Use of the Malpighian Bodies of the Kidney"; "The Physiological Anatomy and Physiology of Man," (Todd and Bowman), and besides these a large number of contributions on the anatomy, physiology and surgery of the eye.

He is spoken of by his contemporaries as one who took a lofty view of his calling, he was active in good works, "he was always

wise in counsel, calm, liberal, a lover of peace." A portrait-sketch of him in the *British Medical Journal*, April 2, exhibits the features of a thorough English gentleman, mild and benevolent, and of fine intellectual capacity. Doubtless the profession of medicine in this country would esteem the privilege of owning a copy of the engraved reproduction of the painted portrait, executed by Mr. Ouless, spoken of in the *British Medical Journal*.

D. Hayes Agnew, M.D., LL.D.

Dr. D. Hayes Agnew, the famous surgeon of Philadelphia, died at his home March 22d, in the 74th year of his age. He was born in Lancaster county, Pennsylvania, in 1818, and was the son of Dr. Agnew, an eminent physician of that section. After completing his classical education at Newark College, Delaware, he entered the Medical Department of the University of Pennsylvania, from which he obtained in due time his degree of Doctor of Medicine. He started in practice in the rural districts, but soon after moved to Philadelphia, where he early in life became a lecturer on Anatomy in the Philadelphia School of Anatomy. In 1854 he was elected one of the surgeons of the Philadelphia Hospital, and founded the pathological museum of that institution. In 1863 he was appointed demonstrator of anatomy and assistant lecturer on surgery in the University of Pennsylvania, and soon after became one of the surgeons of Well's Ophthalmic Hospital. In 1865 he was elected to fill a similar position in the Pennsylvania and Orthopædic Hospitals. In 1870 the highest point of his ambition was reached by his election to the chair of Operative Surgery in the University of Pennsylvania, which position he continued to hold up to the time of his death. His contributions to surgery have been numerous and valuable, culminating, in the crowning achievement of his life, in the classical and elaborate system of surgery which at once gave him a world wide reputation as a ripe scholar, a judicious teacher and successful practitioner. It will long remain a standard work of its class, founded as it is upon remarkably wide surgical experience in every department of the operative art. As an operator, he was possessed of remarkable skill, and long enjoyed a varied and lucrative surgical practice, which extended over a large area of his native State. His position as a recognized surgical authority won for him the distinction of being chosen one of

the consulting surgeons of the late President Garfield, whom he attended during his long and painful illness, and upon whom he performed a surgical operation with a view of extracting the murderous bullet.

Passing away at a ripe age with a long life of labor in his profession, he has left an honored name, which will always stand in the front rank of representative American surgeons.—*Med. Record.*

A TEST FOR BUTTER.—A small fragment of butter is bruised between two object-glasses, and examiued under the microscope with polarized light, above a selenite lamp. If the butter be pure, nothing particular is observed; but if it contains a trace of margarine or butter which has been melted, beautiful stars, bright with all the colors of the rainbow, are seen.—*British Medical Journal, Medical Record.*

DEAD BACILLI IN TUBERCULOUS SPUTUM.—The very well-known Japanese bacteriologist, Kitasato, who works in the scientific department of Koch's Institute for Infectious Diseases, has made an important discovery, which will be found in the *Zeitschrift für Hygiene.* He has discovered, by attempts at cultures from sputa, that the great majority of the tubercle bacilli found in sputum are dead, a fact which cannot be proved microscopically, because dead bacilli stain just as rapidly and as intensely as living ones, from which also they do not differ in form. The same is true of preparations made from the contents of vomicæ. This discovery is of considerable importance, from its bearing on the diagnostic value of preparations from sputum, and on the question of the transmissibility of pulmonary tuberculosis from one person to another.—*The Lancet.*

Happy and content is a home with "The Rochester;" a lamp with the light of the morning
For catalogue, write Rochester Lamp Co. New York.

READING NOTICES.

INGLUVIN.—W. R. Warner & Co., desire to send to any physician a sample of this remedy wherever they have a patient resisting all other treatment for sickness in Gestation, Marasmus and Cholera Infantum, for which it has been found to be almost a specific."

NOTE RELATIVE TO THE BUFFALO LITHIA WATER, BY WM. A. HAMMOND, M.D.—There is a point in relation to the therapeutical efficacy of the Buffalo Lithia Water which has not as yet, I think, received sufficient attention. It is well-known that many cases of diseases of the nervous system are complicated with lithæmia, and that unless this condition is removed a cure is very often retarded, and not infrequently entirely prevented. It is quite commonly the case that in cerebral congestion producing insomnia, nervous prostration resulting from over-mental work or much emotional disturbance, and in epilepsy (to say nothing of many cases of insanity) an excess of uric acid in the blood is often observed. This state appears to be altogether independent of the character of the food, for no matter how careful the physician may be in regard to the diet of his patient, the lithæmic condition continues. I have tried to overcome this persistence by the use of phosphate of ammonia and other so-called solvents for uric acid, but without notable effect.

Several years ago, however, I began to treat such cases with Buffalo Lithia Water, with a result that was as astonishing to me as it was beneficial to the patient, so that now, in all cases of nervous diseases under my charge in which there is an excess of uric acid in the blood, I use the Buffalo Lithia Water in large quantities. By this I mean that I do not have the patient drink merely a tumbler or two in the course of the day, but that I flood him, so to speak, with the water, making him drink a gallon, or even more, in the twenty-four hours. By this course the urine, after a few days, ceases to deposit uric acid crystals on standing, the morbid irritability of the patient disappears, the tongue becomes clean, the wandering pains in the head are abolished, and the system is rendered much more amenable to the special treatment which may be necessary for the cure of the diseases from which the patient suffers.

I have tried carbonate of lithia dissolved in water in various proportions, but it certainly does not, in cases to which I refer, have the same effect as Buffalo Lithia Water.

Washington, D. C., January 25th, 1892.

NORTH CAROLINA
MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D., } Editors.

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ORIGINAL COMMUNICATIONS.

AN OBSTETRICAL RAPID DILATOR.

H. S. Lott, M.D., Winston, N. C.

Having felt the want of such an instrument in several cases which have come under my observation, I feel it my duty, as it is my pleasure, to make my conception an offering to the profession, in the hope that it may be of service to my brethren and to parturient women.

The cases in which such a want is felt will suggest themselves to my readers, namely, any critical emergency, where the life of either mother or child, or both, depends upon rapid delivery.

The mechanism of the instrument is simple, but accurate—the dilatation gentle, but sure, and sufficient to allow the introduction and application of either long or short forceps.

Messrs. Tiemann & Co., who made the dilator for me—and it must be made of the best material, else the blades will yield—have kindly furnished me with an electrotype which portrays the instrument very perfectly.

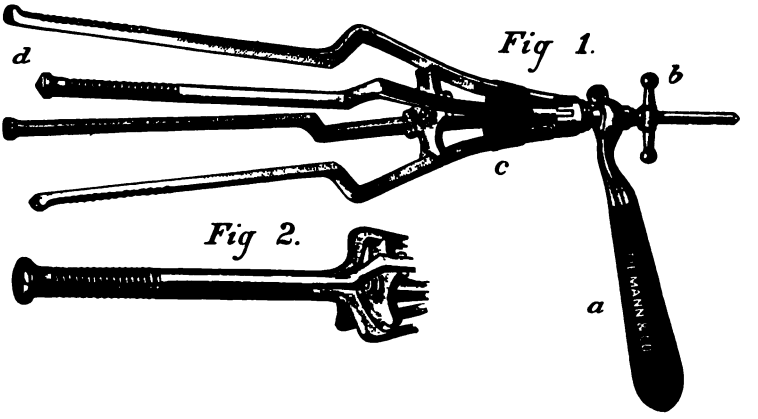

Fig. No. 1 shows the dilator open; (*a*) is the handle, of hard rubber, rotating on the shaft and tightened with a set screw; (*b*) is the dilating screw, graduated with letterings and lines to indicate the exact distance the points of the dilating blades are separated; (*c*) is a heavy rubber band for securing the approximation of the blades for withdrawal when the dilatation is done; (*d*) represents the four dilating blades—six inches long, corrugated to prevent slipping of the encircling os, and each having a delicate, flange-like projection at its distal point to hold it securely within the os. The blades are highly polished, no abrupt edges to pinch or otherwise injure the mucous membrane of the parts, and when closed for introduction. Fig. 2—The distal points represent a circle the size of a silver dime, with a slight concavity presenting to the child's head, for safety in case of contact during a pain.

Thus we have in the four blades *four points of peripheral irritation in the circumference of the os*, with a *dilatation of three to three and a half inches*, after having deducted the probable yielding due to the amount of spring in the blades, which it is impossible to present.

The position of the patient for introducing the dilator must

depend upon several conditions, chief of which are the stage of gestation and the position of the os.

If in a multipara gestation is well-nigh finished, the parts ample, and the os easily reached by the examining finger, no especial deviation from the ordinary dorsal position will be necessary. If, however, we have either primipara or multipara with utero gestation partially advanced, the parts firm and unyielding, the os buried in the hollow of the sacrum, it will then be necessary to elevate the hips, relax the system with chloroform and pull down the perinæuum either with the hand or the duck-billed speculum in order to secure the introduction of the dilating blades.

After introducing the dilator into the os, the handle is firmly grasped in the left hand of the operator, adjusted by the set screw in the best position for convenience relative to the thighs and nates, and the right hand is left entirely free to control the process of dilatation, the rapidity of which must be governed by the condition of the parts.

TREATMENT OF ABORTION.

By J. A. Watson, M.D., Asheville, N. C.

(Read before the Buncombe County Medical Society, April 4, 1892.)

To one unaccustomed in writing to attempt to give his clinical experience, and make it instructive and interesting to anyone else, I find a very difficult task; but in an honest endeavor to meet the obligation that this Society imposes upon me, I will attempt to give my views and experience in the treatment of abortion.

My limited time will not permit me to do more than to discuss those cases where the abortion is inevitable; that is, cases where the essential symptoms of abortion are present, namely, hemorrhage and pain, together with such dilatation of the cervix as will enable the index-finger to detect the fœtal globe. These are the cases that require no palliative treatment but prompt expulsion. The fœtus may be still retained in utero by the administration of opium, and again by the injudicious use of ergot; but it is done at the risk of septic infection or putrid intoxication, and by no possibility can it

do any good, since there is absolutely no vitality left in the fœtus when the above-mentioned symptoms are present.

It remains, then, simply to determine what are the best methods for getting rid of the contents of the uterus. In the great majority of cases, if there is no meddlesome interference on the part of the attendant, the fœtal sack will be discharged in its entirety, and the after-treatment in such cases should be the same as though the woman had been delivered at full term.

But there yet remains a large per cent. of cases that nature is unable to so happily dispose of, and that require prompt and judicious assistance from the medical attendant. If the abortion takes place before the end of the second month, the question of a placenta does not enter the case; "for, prior to this time, the fœtal ball is everywhere attached to the uterine walls and gets its nourishment from the carpet-like surface of the uterus." By endosmosis the nutrient materials in the blood of the mother are taken into the circulation of the fœtus. This is the physiological condition of the fœtus until the end of the second month, when a change takes place and the placenta begins to form. It is evident, then, that there must be a difference in the pathological conditions in an abortion occurring in the earlier months of gestation, and one occurring after two and one-half months; but so long as the fœtal membranes remain unbroken, this is not a vital point. Hemorrhage, as a rule, is not profuse unless the membranes have ruptured, and consequently the utmost care must be had to preserve them intact.

If the cervix is well dilated and the hemorrhage great, it is a temptation to attempt to detach the fœtal ball and deliver at once, but the risk of leaving a part of the placenta or portion of the decidua is so great that such a course is seldom justified. Ergot is almost universally used in these cases, but so eminent an authority as Dr. Thomas considers it of doubtful value; he claims that it acts strongest on the muscular fibers of the lower segment of the uterus, and aptly compares its use in abortion to driving a spirited horse up to a closed gate and then urging him forward.

I have found the hot douche very effective in controlling hemorrhage; the temperature should be at least 120°, and the stream should be continued for at least half an hour; but the true specific for hemorrhage in abortion is the tampon. This should be made of

aseptic material—cotton boiled in a 5 per cent. solution of carbolic acid and dried, is excellent.

To apply the tampon, have a table brought to the side of the bed with a blanket and pillow upon it. Place the patient upon the table in Sims' position and expose the uterus. The best material for packing the upper part of the vagina with is iodoform gauze. This should be packed into the posterior and anterior or cul-de-sac. If the os be dilated, stuff some of the dressing into it. This will promote reflex pains and hasten dilatation. Below this pack small pledgets of carbolized cotton, squeezed out of a 5 per cent. solution of creoline, until the vagina is well distended, and over this place an antiseptic pad. This must be held in position by a bandage connected with one passed around the waist. The vagina is now secure against the entrance of air or septic germs. In the great majority of instances this will bring the abortion to a successful conclusion. A tampon prepared and applied in this manner may be safely worn twelve hours. When all pain has subsided it should be removed.

If the placenta or any of the membranes remain, they should be delivered at once. Delay is useless and dangerous, since hemorrhage is almost certain to return if any part of the placenta is left, and the broken and partially detached decidua is a favorable nidus for the deadly streptococcus. Antiseptic washes will do but little good unless dead membranes are first removed, which prevent them from acting directly on the uterine wall. The patient should be carefully prepared for the operation; cleanliness is the first consideration and antiseptics the second; under no circumstances should either be neglected. The vulva and anus should be carefully washed with a solution of corrosive bi chloride, strength 1 to 2,000, and the vagina douched with a 10 per cent. solution of creoline Having placed the patient in Sims' position, draw the uterus well down with a tenaculum firmly hooked into its anterior lip; dilate the cervix, if necessary, and with an ordinary large curette scrape out everything within the uterus.

If the time is subsequent to two and a half months, I prefer to first remove as much of the placenta as possible with placental forceps. After the uterus has been completely emptied its cavity should be irrigated with a mild bi-chloride solution, or what is probably safer, a 5 per cent. solution of creoline.

In washing out the uterus, the irrigating bag containing the fluid should not be held higher than two feet above the patient. This will lessen the danger of forcing foreign matter into the tubes. If a Bozeman or Lyman irrigator is not at hand the tube of an ordinary fountain syringe will answer as a substitute, provided a glass drainage-tube be passed along with it into the uterine cavity to insure a free exit for the fluid. After the washing is completed I carry a strip of iodoform gauze well up through the internal os into the cavity of the uterus; this insures prompt drainage for remaining débris and should never be omitted when the curette has been used.

The patient should be kept in bed for ten days. Hot vaginal douches given morning and night; they add greatly to the comfort of the patient; they are perfectly harmless, and finally they promote involution and reduce the danger of pelvice inflammation.

Septic infection and acute metritis are not unfrequent complications in criminal abortion. Prompt expulsion of the contents of the uterus, preventing systemic infection and allaying inflammation is the rational procedure. A report of the following case will illustrate a safe, easy and efficient line of treatment for similar cases:

Mrs. X., finding herself pregnant, resolved at the end of the second month that she did not wish to bear a child, and decided to induce an abortion She procured an ordinary gum catheter, and on retiring to bed passed it up into the uterus, and, withdrawing the stylette, allowed it to remain several hours; this she repeated the following night, when pain and hemorrhage convinced her that her labor was not unrewarded. The flow continued several days and then became offensive. The pains had given place to a general soreness through the pelvis; rigors and fever soon followed. At this stage I was called in.

I found the patient slightly delirious, though she would answer questions correctly; temperature 105°, with frequent fluctuations; pulse 120; the surface of the body was quite moist. I found the cervix inflamed and rigid; oozing from the os was an offensive discharge. I decided that the uterus contained a septic fœtus, which was rapidly poisoning the mother, and that prompt delivery was imperative. Ordinarily I should not have hesitated to dilate the cervix and turn out the contents of the uterus with a curette, but the marked metritis and peri-metritis already present gave

doubtful promise of success along that line, so I resolved fo try the effect of prolonged hot douching.

I directed the nurse to project a continuous stream of water, temperature 120°, against the cervix for three hours. The patient was placed over a large tin douche pan so arranged that the water would run out through a rubber tube into a receptacle at the side of the bed. The water was turned and kept up as continuously as possible for four hours; the temperature was now 99°; pulse 100; mind clear; complains of intermittent pains through the uterus; cervix is beginning to dilate. Administered a little stimulant and directed douche continued, which was done at intervals for two hours longer, when there was expelled from the uterus a partially decomposed fœtus with punctured membranes.

The rationale of this treatment is plain and needs no explanation.

THE DISLOCATION OF AN OPAQUE LENS—NATURE'S RARE METHOD OF RESTORING SIGHT TO A CATARACTOUS PATIENT.

By Julian J. Chisolm, M.D., Professor of Eye and Ear Diseases in the University of Maryland, and Surgeon-in-Chief of the Presbyterian Eye, Ear and Throat Charity Hospital of Baltimore City.

As a rule, an eye in which the lens has become cataractous is an eye doomed to blindness, unless surgical relief is obtained. The opaque senile lens, entombed in its capsule, is in a measure isolated against further changes, and remains a permanent obstacle to vision. The passing years are to it as nothing. It is uninfluenced by time. Once opaque always opaque, and that to the end of life. Fortunately, the skilled surgeon has made cataract operations one of the most successful of all surgical procedures. After a painless operation under cocaine and a very short convalescence, the previously blind walk forth alone with sight restored; now made doubly precious by its previous withdrawal. To the rule of success after cataract operations there are but few exceptions. The observant ophthalmic surgeon, educated in the school of a large clinical expe-

rience, is now dissatisfied with himself if he loses even one single eye out of a hundred cataracts operated upon.

This wonderful advance in this special surgery, which the last few years have brought about, is not generally known. Among those with cataract there is a lurking dread that permanent blindness threatens, from which there is no sure escape. Operations they consider very hazardous. Each blind person feels misgivings that, in their own particular case, the promises of restoration are not likely to be fulfilled. They have heard of a great many recoveries after operations, but they have also heard of some failures. The latter make by far the most lasting impressions, hence they recoil from the simple, painless surgical method for obtaining relief.

Gossip, ever active, and in this instance based upon a grain of truth, encourages the blind with the statement that to those who patiently wait, the long wished for comes. This hope is strengthened by the report of some person, long blind with cataract, miraculously restored to sight. For many years this old gentleman had been led about, but now walks unattended. The world wonders. The restored hero delights to relate how, after many years of prayerful longing, the sight suddenly came back to him. The recital of such a rare occurrence is very disturbing to the timid, blind with cataract. It induces some to defer the operation as the very last extremity; and, while waiting patiently for the miraculous restoration, they die with their blindness.

These sudden restorations, described truly as the lifting of the curtain from before the window, rare as they are, have occurred, and will occur again. The explanation is as simple as the occurrence is rare. The crystalline lens is fixed in its proper position by a membrane which incarcerates it between its folds. This membrane is attached by its border to the inner walls of the eye, at the ciliary region. It is this membrane which divides the eye-ball into its two chambers: the vitreous, behind the lens, and the aqueous space in front of it. Nature has secured the lens between the two layers of this membrane so that its centre shall be permanently fixed directly behind the pupilary opening. This supporting and sustaining membrane is called the suspensory ligament of the lens. In some persons this ligament is much more frail than in others. It also becomes still further weakened by atrophy in some cataract-

tous eyes, so that a sudden severe jolt might break it and allow the lens to be displaced from its normal position.

To the blind accidents must frequently occur. They vary from slight bruises to fatal injuries. Cases are numerous in which blind persons have fallen down stair-ways and have been found insensible in the lower hall. In one or two well authenticated cases, when consciousness had been restored to the injured, they saw objects, a pleasure which they had not enjoyed for years. By the violent concussion of the body the suspensory ligament had been torn, permitting the opaque lens to fall away from the pupil. As any other ligament of the body is more likely to be torn than the suspensory ligament of the lens, this accident must be an extremely rare accompaniment of a fall. This yielding of the suspensory ligament and the falling of the opaque lens by gravity into the vitreous chamber has even been brought about without violent succussion. There are still rarer cases known in which this ligament has spontaneously given away. Under a slow process of atrophy it has become so frail that the very weight of the lens has ruptured it. The cataract has quickly and painlessly slided away from blocking up the pupil, restoring vision suddenly to the surprised and delighted blind person.

During my surgical life over 6,000 cataract patients have come under my personal observation, of which nearly 5,000 are entered on the books of the Presbyterian Eye, Ear and Throat Charity Hospital. Amidst this army of blind people only two cases of spontaneous restorations to sight have occurred without the intervention of an accident or any operation. On account of the extreme rarity both are worthy of a place in the literature of ophthalmic surgery.

In the year 1884 I operated upon a lady aged 60 and restored perfect vision to an eye blind eight years with cataract. She was extremely frail, not weighing over 80 pounds, and was nervous to a degree. She was surrounded by every luxury and yet was very miserable. She was very anxious to have sight restored, but was too timid to undergo an operation to regain it. She had been blind and helpless for four years, when one day, sitting alone in her chamber, with eyes closed according to habit, she suddenly opened them on the approach of some one entering her room. She saw first her hands in her lap, and then could discern the approaching

figure. In her fright she thought it a vision, and for some time could not believe her senses. In her case the recovery was brought about by no shock whatever. The sight regained permitted her to enjoy once more active life. As she was a woman of wealth she became the wonder of the city. Her miraculous restoration was the absorbing topic of social discussion. The regained privilege in this case was not permanent. After a few months of happiness, darkness slowly resumed its sway, and she became blind. I had examined the eyes when the cataracts were forming, and also when they had matured. She had made several appointments to have one of them operated upon, but her courage always failed her when the day for operation approached. When sight came back so spontaneously and wonderfully, she was congratulated by her friends for her procrastination. Upon examination of the restored eye, I found the opaque lens depressed in the vitreous chamber and out of the line of vision. In the course of a few months the optic nerve took on atrophy, and all vestige of light slowly and painlessly vanished from this eye. With the other she still had good light perception.

After four more years of blindness, and after much persuasion, she was finally induced to have the cataract removed from the remaining eye. The result was perfect restoration of sight, with the ability of reading the finest print with ease. This sight she still enjoys.

The second case was in a gentleman aged 45. He had lost the right eye when a child from injury with a fork. When I first saw him, in 1888, he had recently become dull of vision in the left eye also. He had been struck in this eye with a twig and the sight had been slowly deteriorating for the past twelve months. Upon examnation the long lost eye-ball was found everted. The pupil was closed and adherent to a calcareous lens. In it there was no light perception. With the left eye he could count fingers at four feet. In this eye there was a well developed senile cataract, a free pupil, with a tremulous iris. As the eye-ball was moved about I thought that I detected a slight motion in the lens. With the ophthalmoscopic mirror a reddish reflex from the choroid could still be seen.

I saw him again in March, 1890. During the interval the opacity of the lens had become complete, and only light perception in this eye remained. He came to make inquiry concerning the operation

of extraction. It was not convenient for him to have it done during this visit, but he promised to return to the city in the fall for operation.

November 22d, 1890, he came to the city for examination and to seek an explanation for the miraculous recovery of his vision. When he went to bed on the night of the 5th November, 1890, he was blind as he had been for many previous months. When he had opened his eyes on the morning of the 6th November he could see all the objects in his room. The wonderful transformation from blindness to restored sight had come on during his sleep. An ophthalmoscopic examination showed what had occurred. At the most dependent portion of the vitreous chamber the opaque lens was seen. It had tumbled away from the pupil during the night by the giving away of the suspensory ligament, and no longer interfered with vision. With a 14+D lens his distant vision was $\frac{15}{10}$; and by the use of an 18+D lens he could read the finest print with ease. He had a clear black pupil. I saw this patient again in November, 1891, one year after the miraculous recovery. He still continued in the full enjoyment of excellent vision.

SELECTED PAPERS.

TREATMENT OF PNEUMONIA.

By William F. Waugh, M.D.

In this paper the treatment of lobar or croupous pneumonia, acute pneumonic fever, will be considered, the catarrhal and chronic forms of pneumonic inflammation not being included. The subject is apparently a simple one; yet, judging from the diversity of the views expressed in the medical periodicals, there is far from being a uniformity of belief. Indeed, in no other serious affection can there be found such a variance of opinion, not only as to the choice of remedies, but as to the fundamental principles upon which the use of remedies is based. The reason of this is to be found in an

exaggerated idea as to the rôle of drugs in modifying the course of the disease.

Dr. E. F. Wells read a paper before the Chicago Medical Society in December last, in which he considers the prognosis of pneumonia.

He says: "The death-rate of pneumonic fever varies, according to the statements of authors, from nil to 100 per cent. I have collected and tabulated the statistics of 223,730 cases of this disease, of which number 40,276 perished from the direct effects of the malady—a rate of 18.1 per cent. These cases have been drawn from every available source, from all parts of the world, and have been subjected to every imaginable mode of treatment. Numerous schools of medical philosophy and eras of fashion in therapeutics have also passed through the various stages of their existence during the period of time covered by this inquiry. Notwithstanding this, it will be noticed that the death rate of all the larger collections of cases—with few exceptions—is nearly the same, although they were probably subjected to widely different, possibly diametrically opposite, methods of therapeusis. From this we may infer that treatment alone has exercised but little influence over the natural course of the malady, and that the results of this analysis fairly represent its normal fatality. In addition we have an indirect mortality of about 1.3 per cent. from cases followed by dependent chronic ailments, which, added to that from the disease *per se*, raises the true mortality rate to about 19.4 per cent."

Little benefit is to be expected from a comparison of results as published. Some observers include the "necessarily fatal" cases, such as those depending upon cancer; terminal pneumonias of diabetes, nephritis and tuberculosis; and, also, such complicated cases as typhoid fever with pneumonia. These should be omitted in estimating the relative values of different methods of treatment, as a series containing a large proportion of such cases could not justly be compared with another series that contained none. The same holds true of cases occurring in connection with delirium tremens; the catarrhal pneumonias of infancy, those occurring in connection with measles and croup, and the dangerous form which occurs in the aged. There is the more reason for separating these groups from the uncomplicated lobar pneumonia of adults, in that the treatment that proves successful in the latter is not necessarily, or even suppositiously, suited to these special classes.

Limiting ourselves to this class of uncomplicated cases, it must be said that the tendency to death is remarkably small for so serious a disease. This is shown by the good results following the most diametrically opposite methods of treatment. The value of tartar-emetic is insisted upon by Trousseau, most emphatically, and yet he is said (I quote from Wells) "never to have lost a genuine case in a child." On the other hand, Juergensen stands out prominently as the advocate of the supporting treatment, and his death-rate in uncomplicated cases was almost nil. In Dr. Levick's letter he shows how extreme is the solicitude with which he seeks to protect the heart from any possibility of failure, yet in the quotation from the *Proceedings of the Allegheny County Medical Society*, it will be seen that there was a unanimous expression in favor of veratrum, aconite and salicylate of soda.

The only way to reconcile such oppositions is by admitting that the tendency is to recovery in nearly every case of simple uncomplicated pneumonia, and that this tendency is so strong that scarcely any form of mismanagement can overcome it; for if the treatment by raw beef, red wine, quinine and cold baths be right, and Juergensen's statistics show it to have been remarkably successful, how can the treatment by veratrum, antimony and venesection be anything but wrong?

The truth is that neither is the heart so likely to fail as the ultra stimulationist asserts, nor is this organ to be harnessed in and curbed like a runaway horse, as the advocates of sedatives appear to think. But if the results be equally good, the quicker relief obtained by the judicious use of sedatives counts in their favor. The observations of our fathers showed that great relief followed the venesection universally practised at the beginning of the treatment, and if the statistics show, as Well's claims, that the mortality is no less now than it was in those days, the practice could not have had the ulterior bad effects its opponents alleged. The truth is, we have dropped an efficient means of palliation without any corresponding advantage.

But we have not lost our patients in the appalling manner the old bleeders predicted. They thought their venesections were absolutely necessary to stay the progress of the disease and to save life; but we now see that this could not have been the case. The truth is, that in pneumonia nothing can replace the close attention of the

physician. He must be prepared to employ sedatives or cardiac tonics, according to the exigencies of the case; he must be quick to turn from one to the other; to stop his veratrum at the first indication of failing heart, and be ready to bleed if threatening "collateral fluxion" demands it.

If hot poultices are sufficient to relieve the oppressive symptoms in the first stage he may be content to let the patient alone, simply regulating the hygiene of the sick room. And how much this covers in the hands of an experienced physician. The care necessary to keep the temperature even by night and by day, and yet to insure free ventilation, and keep the air charged with moisture; the changing of poultices, and of clothing when wet with perspiration, and the avoidance of cold; the use of food, nourishing, yet not stimulating, and the relief of thirst, without overcharging the circulation with fluids, are some of the problems that confront us. These are not easily solved with the assistance of trained nurses in hospitals; in private practice among the poor the difficulties to be met are great.

The use of soups is to be condemned. Niemeyer showed clearly that venesection relieved the oppression due to collateral fluxion, simply by reducing the volume of the blood. The abstraction of the nutritive elements of the blood is to be deplored; it is an unavoidable evil, and one so great that in every case the question is to be decided, whether the gain of comfort and the avoidance of œdema of the lung is worth the price paid for it in blood that is all the more valuable under the circumstances. For when a large proportion of the fibrin has been withdrawn from circulation, and the heart has been called upon to do extra work, the nutrition of this organ suffers from the poor quality of the blood furnished for its support.

But the good effects of the bleeding may be lost by the carelessness of the nurse, who allows the thirsty patient to replace the bulk of the blood removed by innutritious water. Here we have the loss without the gain. On the other hand, we may obtain the benefit without the loss, by withholding fluids until the emunctories have thrown off the excess of water. For this reason, instead of soups, the patient should be put upon a dry diet, whose effect in reducing the volume of blood is so great that Da Costa speaks of aborting a pleurisy by it. Thirst is to be controlled by acid solu-

tions in teaspoonful doses, little pellets of ice, teaspoonfuls of hot water, bits of orange-peel held in the mouth, and such expedients. The concentrated pre-digested foods are the best forms of aliment in all cases where a maximum of digestibility and nutritive strength, with a minimum of bulk, are indicated.

With the hygienic conditions properly regulated, and the use of hot flaxseed jackets enveloping the chest, it is only exceptionally any sedative is required. If it be, preference is to be given to the chemical antipyretics rather than to the nauseant emeto-cathartics, like veratrum and antimony. Antipyrine, acetanilide or phenacetine, in doses commensurate with the fever and the oppression, are the best remedies. They are safe in the hands of any physician competent to treat a case of pneumonia. The addition of cocaine, in doses of 1-8 to 1-6th grain, does not detract from the antipyretic action, but serves to tranquilize the nervous system, relieve delirium, and in some measure to sustain the heart, without hardening the pulse. The addition of quinine to this prescription is unquestionable. In small doses this drug has no appreciable effect on the temperature, but acts as a heart tonic. It hardens the pulse, however, and increases the tendency to delirium; while it sometimes proves irritant to the stomach or bowels, an occurrence to be dreaded in pneumonia. In malarial districts it is natural that this drug should acquire a reputation in pneumonia that could not be sustained elsewhere. Except when there is a special indication for its use, quinine does not lessen the tendency to death in pneumonia. This does not apply to the catarrhal pneumonia of infants, where large doses of quinine (5 grains by suppository, every eight hours) constitute the most effective means at our disposal for cutting short the attack and bringing on speedy resolution.

If the cough be troublesome, in spite of the measures above described, small doses of Dover's powder or codeine will give relief. But the cough rarely demands special treatment, if the poulticing be well done, and the air charged with moisture.

It has been asserted that if the stomach and bowels are disturbed, the irritation quickly disappears under the use of the sulphocarbolate of zinc, in solution of powder, 2 grains every two to four hours.

In the pneumonia of the aged the mortality is, and will be, much greater. The subjective symptoms are less marked, the fever

latent, and the disease is unnoticed or underrated until well advanced; the patient meanwhile keeping on his feet, to the great detriment of a heart already subject to senile changes. The indication for support of the heart is more imperative here; and the need of sedatives is less, as the symptoms for which they are required are absent. If we once rid ourselves of the notion that bleeding, veratrum, *et id omne genus*, have no direct influence in checking the spread of pneumonia through the lungs, we simplify the question greatly. Hot poultices with mustard, or painting the chest with iodine, are useful. Phenacetine is the only antipyretic to be used; and that only in moderate doses, when the temperature rises above 102° F. The heart must be carefully watched, and quinine, strychnine or sparteine given when required. The physician must not let his patient go without a visit for more than three or four hours, until the crisis is safely passed. Careful nutrition is more than ever requisite; and care taken that the gravity of the case is not overlooked; frequent physical examinations being necessary. Nor should the symptoms be masked by the use of opiates or alcohol. The former are contra-indicated. Of the latter as little should be given as the previous habits of the patient will permit. In pneumonias of all classes this should be the rule as to the use of alcohol. If the patient be in the habit of using alcohol when well, it is unsafe to stop it when he has pneumonia; as the stoppage will cause a relaxation of the heart that has its dangers. This does not refer to the use of stimulants in threatened collapse, where alcohol is peremptorily required; but to its systematic use throughout the course of the pneumonia.

As the sensitiveness of the bronchial mucosa in the aged is weak, the occurrence of coarse râles calls for the use of stimulants, senega, serpentaria, ammonia and sanguinaria, of which the last is the best. Five drops of the tincture may be given, with some ethereal stimulant, quebracho and coca, every two hours. This combination is of considerable value.

Above all else, in the treatment of pneumonia of the aged, from first to last it is imperatively necessary to keep them in the recumbent posture. Dr. Levick must have had these cases in his mind when he wrote his letter. The best way to treat heart failure is to avoid the causes that produce it. Many of the "unexpected deaths" of aged pneumonics are due to the neglect of this precaution.

The treatment of drunkard's pneumonia is the most difficult of all, as the prognosis is the worst. Wells, in the pamphlet already quoted, says: "Huss lost 20 per cent., and Fismer 50 per cent. of the alcoholic cases; and Greene estimates the death-rate of such at from 25 to 50 per cent. I am inclined to think that, in confirmed drunkards, it exceeds even these figures.

"The victim of chronic alcoholism is in such a state of physical and mental weakness as to be illy able to withstand the onslaught of any disease, and especially one of the gravity of pneumonic fever. He is usually a man having the appearance of robust health, but a careful scrutiny will reveal this to be a delusion and a snare. His bloated and rubicund visage, his ponderous abdomen and his full but soft fleshy parts, are no more the indication of strength and vigor than is the padding of a Punch and Judy character. His digestive apparatus is in a state of chronic irritation, and it has for so long a time been accustomed to excessive stimulation that it no longer responds to ordinary irritation, and in the case of disease refuses longer to receive food or even the fiery draughts which have been the patient's ruin. The nervous system also weakens very remarkably.

"When pneumonic fever attacks such a person it is prone to pursue a latent and insidious course. The initial chill is either absent or but slightly marked. The patient has for several days lost his appetite and cannot retain upon his stomach his accustomed ration of alcoholic liquors. He is nervous by day and restless by night. He feels tired and languid, and no longer seeks his companions at his accustomed haunts, but prefers to remain at home, and yet is afraid to be alone. With the access of the disease he is at once and completely prostrated. He may have a cough, with expectoration and some uneasiness referable to the chest. The cough, if present, often escapes notice from the fact that these old topers have an habitual cough and hawking. If the lungs be now examined, the ordinary physical signs of pneumonia inflammation will be found. Delirium tremens is of very frequent occurrence, and the patient, obtaining no sleep, together with the constant action, absence of nutrition and the ravages of the disease, soon falls into a state of profound depression and usually dies."

The treatment applicable to the pneumonia of the aged may be used for the alcoholic. To this is to be added the regimen suited

to delirium tremens. The patient is to be watched constantly by competent nurses. He is to be fed sedulously. He must be kept as quiet as possible; the means varying with the case. Very rarely, in young subjects, nothing but tartar emetic will subdue the violence of the delirium. Generally capsicum and coca will have the same good effect they manifest in delirium tremens. Strychnine is often required in doses much larger than are ordinarily given; if the withdrawal of stimulants is followed by symptoms of approaching collapse. The cold bath, if employed at all, should be used with caution. In this class of cases the method of Juergensen did not prove very successful. If the physician be required to visit the aged pneumonic every four hours, he should literally take up his residence with the alcoholic pneumonic. Nobody but the physician can control him, enforce the required recumbency, compel him to take his food, and meet the incessant demands of this most troublesome patient, and the sudden changes in his condition. The exigencies that require such powerful remedies as antimony, require also the judgment of the physician to make a change in the treatment the instant it is required. When such conditions can be secured the death-rate will not be much higher than in simple pneumonia.—*Times and Register.*

ADENOID VEGETATIONS OF THE NASO-PHARYNX.

By J. A. Thompson, M.D.

The vascular supply of the naso-pharynx—the structure being really one large gland, the so-called pharyngeal tonsil—is very profuse, and consequently we have as a necessary corollary to a great supply of arterial blood a very profuse and complicated lymphatic system here. The so-called hypertrophy of the pharyngeal tonsil is an overgrowth of this lymphoid tissue. From some exciting cause it takes on an abnormal growth, preserves in itself the normal histology of lymphoid tissue, but by its growth constitutes a tumor of this region.

The causation of this condition is not very well defined. Many cases are not congenital; the child is born with this condition. I

recall from my experience one case of this kind where I had operated on the father for papillomata of the larynx a few days before the child was born, and, as the minds of the parents were filled with thoughts of throat tumors, they noticed within a few days snuffling, a muco-purulent discharge from the nose, and beginning slight dyspnœa. At three weeks I found the naso-pharynx occupied by an adenoid vegetation, which growth I removed with a curette, and the child made a perfect recovery. The operation was performed when the child was only a month old.

It is a disease of childhood. I think Bosworth is in error in placing a number of cases that he has in this category. He has recorded several cases from forty to fifty years of age which he diagnoses as this condition. But cases of excessive hypertrophy of the granulations in ordinary pharyngitis sometimes undergo a mucoid degeneration and present all the superficial appearances of adenoid vegetations. I do not think these present true hypertrophy of the pharyngeal tonsil. Leaving out of question Bosworth's statistics, more than half the cases will be found in children under fifteen years of age. If the condition was better known among physicians, and was recognized more easily than it is, I think we would find that under the age of seven years we would find most of the cases. On the other hand, Solis-Cohen has reported two cases of hypertrophy of the pharyngeal tonsil in adults, and he discovered them accidentally while treating the cases for laryngitis.

Heredity is a powerful factor in the causation of these growths. I have under treatment a child that is the fourth one in this family with this condition. One I operated on five years ago; two died in convulsions, which I think suffered from this same condition.

The pathology of this condition needs only a few words. Externally we have an irregular growth, often compared to a bunch of grapes, really a single tumor split into a number of deep fissures or lobes. This is covered by a layer of columnar ciliated epithelium, which dips in between the lobes. In the lobes themselves there is no epithelial tissue, but we have an hypertrophy of the normal tissue very poorly supplied with blood-vessels. Mucoid degeneration has often occurred, making it difficult to separate the connective from the adenoid tissue.

Of the symptoms that accompany this condition the muco-purulent discharge is the most prominent in the early stages, and is

the one that attracts attention first. The vascular supply of the growth is poor. The epithelial layer is usually but a single layer of cells, and the serum of the vessels seeps and oozes through. The structure of the vessels in the growth is not a perfect one, so that the vessels are easily ruptured, and slight hemorrhages frequently occur. The follicles of the growth are a good culture-ground for the pathogenic organisms, and the serum furnishes then an abundant nutrient fluid, so that we have a favorable condition to produce the muco-purulent discharge, which drops into the throat; or, if the growth be large, it falls forward through the nostrils.

There is a very marked alteration of the voice if the naso-pharynx is at all filled with this growth. In a paper which I presented to this Society some time ago, on the physiology of the nose, I called attention to the fact that the tones of the voice are not simple tones, but are made up of fundamental tone and a number of harmonics, which Helmholtz calls overtones. These overtones are normally produced in the naso-pharynx or nose. Where obstruction occurs here the alteration of the voice is so characteristic as to be recognized almost as soon as the patient speaks, and seems to have a greater influence in modifying these undertones than the obstruction of the nose itself. The ability to pronounce nasal sounds is usually lost entirely. There is no possibility of singing for a child with this growth. The larynx makes an effort to overcome with this obstruction and tires very easily. I saw a beautiful example of this a few days ago in a soprano, well known in this city, who had lost her head-register entirely, and the whole cause of the trouble was a comparatively slight hypertrophy of the inferior turbinated at the posterior extremity. A few cauterizations of this region restored the voice, because it relieved the over-taxed arynx.

With the nasal stenosis that comes when these growths are at all large we have mouth-breathing and the facial expression very much altered. This facial expression is altered from two reasons: the mouth is always held open and gives the characteristic stupid appearance, and the interference with the nasal circulation results in a swelling of the roof the nose and a discoloration of the parts around this region. There is also in this condition of obstruction of the naso-pharynx, from reflex causes or from others not well

understood, certainly a marked interference with the cerebral circulation. This condition has been noted only recently by observers, and as yet I do not know of any plausible explanation of the condition. But that it does exist, clinical observers are convinced of. There is an interference with the cerebral circulation that renders the child stupid and unable to continue mental effort for any great length of time.

The secondary diseases in the ear are among the most important symptoms of adenoid vegetations in the pharynx. The chronic form of purulent otitis media is one of the most common. If we have not this as a result we are almost certain to have a chronic catarrhal otitis media. I have had an unfortunate experience in this condition in my own family. My little girl contracted whooping-cough, and this condition was developed in the naso-pharynx. It proved to be one of those cases where successive portions of the gland undergo enlargement; it required four operations to remove the growth entirely. Measles coming on, developed purulent otitis media, which condition has been treated by the most skilled physicians of this city. While it can be checked, still, with any rash exposure, the condition returns. If this case comes in a family of a trained specialist, under constant careful watchfulness, what must be the effect on the ear of this growth in the neglected cases that are not recognized by the family physician, or where the parents do not follow advice and do not give the cases the needed attention? The answer to this question is very easily found. The great majority of these cases become deaf in one or both ears, and their usefulness in life is diminished 50 per cent.

Headache, in the occipital region especially, is one of the most common symptoms. I have frequently noticed one other symptom in hypertrophy of the pharyngeal tonsil, which is not dwelt upon at any length in any work or any magazine article. In ten out of fifteen cases I have found a history of convulsions at some time. This is well illustrated in the family which I cited a few minutes ago to show the hereditary influence. These four children presented about this history: When about six months old the mother noticed that there was an obstruction of the nose: the child did not nurse well, and then would come the nasal discharge; then for two or three weeks, or more, the child would be excessively nervous, would vomit occasionally, and then, through some slight derangement of

health, would come severe convulsions, persisting sometimes for hours. The first two children did not die in the first attack, but the second, third and fourth came, and finally resulted fatally. The third child began in the same way, and was finally brought into the clinic at Miami College in a convulsion. I chloroformed the child to stop the convulsion, and removed the vegetation at the same time. The growth returned several times, and with every return of the growth there was a return of the convulsive attacks, that were speedily arrested by anæsthetizing the child and removing the growth. The fourth child is not quite six months old, but has begun to show the characteristic symptoms. I intend to operate on it to-morrow. The history of every case that I have ever treated and inquired into carefully has shown between the age of six months and two years, at some time, the occurrence of convulsive attacks.

The diagnosis of this condition is made in part from the characteristic facial expression, from the alteration in the voice, by posterior rhinoscopy if the child is old enough to permit of this method of examination, and sometimes the lower border of the growth projects below the lower border of the soft palate, and can be seen by the direct examination. More frequently, however, it carries the palate down before it, and you only see the palate depressed or lowered. Where a direct view cannot be obtained, or where posterior rhinoscopy cannot be practiced, you can sometimes see through the nasal cavity. If you cannot get the view, directly or indirectly, and you are suspicious, from symptoms, that this condition exists, it is perfectly justifiable to put in the mouth-gag and to pass the finger directly into the naso-pharynx, where, if this hypertrophy exists, the characteristic sensation will be detected

To make sure that you are not dealing with nasal polypi, it is advisable always to pass the finger to the lower portion of the septum nasi, and follow that up in order to determine the point of attachment of the growth.

The prognosis is always favorable to the recovery from the condition present; not always favorable as to recovery from the resulting ear complications.

I find that the growth recurs in other portions of the field than the one attacked by the operation. I believe the condition to be the same here as it is in nasal polypi. You remove the pressure from the portion of the gland that is diseased, but not yet hyper-

trophied, and it is very apt to undergo a speedy hypertrophy. Around the site of the old growth there frequently springs up a new growth, not exactly in the same situation, but the same kind of a tumor. A second, third, and sometimes a fourth operation is necessary before the growth is entirely removed and recurrence prevented.

Internal medication has no influence. Caustics are effective in removing the growth if you can apply them without cauterizing something else. They are much slower, however, than the cautery, snare, forceps or curette. Where the growths are small it is possible to remove them by the cautery. But as these cases most frequently occur in children, where the passage is small, I personally prefer other means of destroying these growths. In the use of these forceps you should have two or three different sizes on hand, so as to accommodate yourself to the size and shape of the nasal passage in the child.

In older children the growths can be successfully removed by the forceps under cocaine anæsthesia. But you must pass in a finger at the same time that you attempt to close the cutting edges of the instrument on the morbid growth.

The snare is more difficult of manipulation than the forceps. It does not possess the power that the cutting forceps have of taking some of the normal tissue around the growth, and thus avoid the liability of recurrence.

Ring knives meant to pass in through the nose to the naso-pharynx may be a successful instrument where the hypertrophy is in the lateral portion of the pharyngeal tonsil, but certainly they are awkward and clumsy to operate through the nasal passage. It is much easier to remove through the mouth than through the nose.

The curette is a very effective instrument for removing these soft growths. Among the curettes should be included the nail of the index-finger. The growths are ordinarily so soft that they can be easily scraped out by the forefinger. A sharp uterine curette on a copper stem is the best. The copper stem is so pliable that it is easy to accommodate the shape of the curette to any varying arch of the naso-pharynx.

With very small children it is cruel to do this operation without complete anæsthesia; but in older children the use of the cocaine spray or cocaine injected into the base of the growth will overcome the pain.— *Cincinnati Lancet-Clinic.*

DRUG MANUFACTURERS AS MEDICAL TEACHERS.

The following circular has been sent to the profession:

Dear Doctor:—At this season of the year the practitioner is called upon to treat patients who have spent a large portion of their time in the house during the winter. They have been breathing the confined house air, which, besides being rendered deficient in oxygen by the necessary combustion going on in stoves, lamps and gas-jets, is, in addition, more or less vitiated by the poisonous emanations of organic life.

During most of this time there has been imperfect physiological action because there has been complete oxidation. The intercellular spaces of the tissues have become clogged up with products of incomplete combustion—imperfect waste and repair.

In consequence of these facts we notice a preponderance of those diseases usually attributed to that indefinite cause—impure blood.

Hence we observe the tendency to scrofulous manifestations—eruptions, glandular swellings, abscesses and ulcerations; also the tendency to a breaking down of the nervous system, with its varied phenomena; the tendency, again, to a lack of prompt response to treatment in acute diseases and slow convalescence from them; and, finally, the tendency on the part of inflammatory conditions of the air passages at this time, unles sspecially guarded, to become chronic or to develop active degenerative and destructive processes.

To correct the condition we need a remedy that promotes oxidation within the tissues themselves.

Such a remedy is found in ———. However, not only does it thus promote active oxidation, but it also is itself deposited, in its changed or oxidized condition, within the tissues as direct reconstructive material, indispensable to healthy cells and sound tissue-walls.

Thus it proves to be the true alterative agent, inasmuch as it at the same time renovates and nourishes.

Under this remedy we observe an awakened organic action throughout the system and an improvement in every tissue. We soon observe better muscles, bones, nerves, hair, nails, skin and mucous and serous membranes. The entire system awakens to a more vigorous life and performs its various functions with renewed activity.

In these facts may be seen indications for the use of this remedy, especially at this season of the year, in cases which show consumptive, scrofulous or nervous tendencies.

The preparation referred to in this circular purports to be a mixture of a half dozen hypophosphites with nux vomica, erythroxylon coca, and "various adjuvants."

This has the familiar sound of the sarsaparilla advertisements of the daily press. The sentiments are the same, the logic (?) is the same, and the principle is the same.

A few technical terms have been introduced, but are used in so loose and indefinite a manner as to show that the one who wrote it has principally a befuddling object in view. This is an advertisement which is intended to promote the sale of a proprietary preparation, to extend its use at the hands of physicians. It is quite possible that a physician might, by the sight of it, be induced by a hurried reading to prescribe the mixture it advocates, but it is quite certain that there are few so dull as not to be able to detect its sophistries upon a careful reading. It is unnecessary to review the advertisement itself, but it does seem desirable to call attention to its boldest statement, which is the advocacy of a mixture of hypophosphites, most excellent deoxidizing agents, for the purpose of promoting an exactly opposite process, namely, oxidasion.

There is a legitimate field for manufacturing pharmacy, and with regard to it we have naught but words of praise. It is legitimate, it is necessary, that there shall be special workers to supply in the purest quality, and in the best forms, the substances which clinical and scientific research have shown to be useful in the management of disease. But these substances must wait the demand for them. For a manufacturer to attempt to create a fictitious demand for his products by assuming the rôle of medical instructor, is an insult to the profession and a special insult to each individual practitioner to whom he sends his circular. As we see, such men do not hesitate to manufacture explanations of pathological conditions which will apparently favor the use of their remedies.

How absurd it is for men engaged in commercial pursuits to attempt to solve the great and intricate problems of medicine, and how criminal it is to permit the statements of such interested parties to have the slightest weight in deciding questions of treatment.

These are the firms who send drummers out to assist physicians

in their work. There is nothing more aggravating than the representative from such houses. He is frequently a doctor who has failed in his own profession, or who has not yet entered upon it, or else a drug clerk, or a man who has already proven himself successful in selling new lines of stoves, or boots and shoes. And yet these very men attempt to instruct medical men on physiological and pathological points, and means of treatment, when they have once succeeded in forcing themselves upon their attention. And we hear of these men discussing how little some physicians know of the matter they have in hand. Poor fools, they forget that the poorest medical man they meet is infinitely their superior in point of practical knowledge, and has long ago gone over the subjects they present at the hands of qualified and trained medical teachers.

We are of those who believe that the standard of the medical profession in the United States is high; that the medical men of this country are better educated, and far abler in practice than it is the custom of some pessimists to admit. It never was so slow as to profitably receive professional instruction from uneducated laymen.

It is the duty of the profession to uphold its own honor, and to reject such circulars as the one quoted with the contempt they deserve, and to hereafter refuse to consult with the traveling drummer.—*Editorial in Jour. Am. Medical Association.*

TWO CASES OF CHOLECYSTOTOMY.

By A. T. Cabot, A.M., M.D.

(Read before the Surgical Section of the Suffolk District Medical Society (Mass.), March 2, 1892.)

These cases of operation on the gall-bladder illustrate two quite different conditions. The first is an example of dilated gall-bladder, due to a stoppage of the cystic duct by a calculus, the condition not being complicated by any considerable inflammation in or around the gall-bladder. In the second case, on the other hand, there was a very great amount of inflammation about the gall-bladder, and the stones which were the cause of the trouble had

apparently led to a perforation of the cystic wall, and had escaped into an abscess cavity, lying probably behind the gall-bladder. As the diagnostic points of these conditions are of interest to the surgeon considering the question of operation, the clinical histories are given at some length.

Case 1.—Mrs. P. was seen by me September 30, 1891, when I obtained the following history:

For ten years she had been subject to attacks of membranous enteritis, accompanied by nausea, griping pains in the abdomen and constipation. For the past six or seven years she had had frequent attacks of severe pain in the epigastrium, which always required the subcutaneous injection of morphia for their relief. These epigastric attacks always occurred at times of especial fatigue, and came about four times a year; but since early last spring she had had none of them.

She had been feeling poorly, without appetite and listless, ever since the spring. In the summer she made a trip to the mountains and sea-shore without especial benefit. About the middle of August she had a severe lumbago; after three weeks the pain spread itself over the trunk as a severe general myalgia, and, after persisting thus for a week, it gradually subsided, disappearing about ten days before my visit.

She was always of a constipated habit, had never had hæmatemesis nor had passed blood from the bowels; had never been jaundiced nor had clay-colored stools.

After the subsidence of the myalgia pain was still felt in the right hypochondrium; an examination made at this time revealed the presence of a tumor there. Mrs. P. was a well nourished woman of about 38, but somewhat pale. At the time of my visit there was still slight tenderness in the right hypochondrium, though I was told it was much less marked than it had been the week before. The abdomen was soft, and palpation was well borne and satisfactory. Below the liver was a smooth, globular tumor, which reached downwards in the right side of the abdomen to a point below a horizontal line drawn across through the umbilicus. Upon long inspiration the tumor descended still lower into the abdomen, and when Mrs. P. turned on the left side the tumor changed its position till it lay behind the umbilicus, part of it projecting over into the left side of the abdomen.

The opinion was expressed that the tumor was a distended gall-bladder, probably containing stones, and an operation was advised.

On October 7, 1891, the operation was done under ether. An incision parallel to the lower edge of the ribs was made over the tumor. This was found to be the distended gall-bladder, and was easily lifted outside of the abdomen. A flat gauze sponge laid under it entirely shut off the wound, and the gall-bladder was then incised in its long diameter, making an opening about one inch long. Through this considerable glairy mucus escaped, little, if at all, stained with bile. Four calculi were removed. One of the smaller ones lay in the opening of the cystic duct, but was easily dislodged. After this bile began to escape through the opening.

The gall-bladder was attached to the parietal peritoneum by a continuous cat-gut suture, and was also anchored to the skin by four silk stitches. The rest of the wound was closed with silk. A large absorbent dressing was then applied.

The patient made a good recovery, although her stomach at first was very delicate and intolerant of food. The opening slowly contracted, and closed without any drawbacks. Mrs. P. was not strong through the winter, and had some discomfort from dragging sensations about the cicatrix.

Case 2.—The patient was a slight, delicate woman of 29, and was seen by me December 8, 1891, in consultation with Dr. A. L. Norris and Dr. J. T. G. Nichols. She had always been troubled with very sensitive stomach that was easily and often upset. Married for a number of years, she had had but one child eight years before. Since that confinement she had always been subject to abdominal distress, and on two occasions had had attacks of what was thought to be pelvic cellulitis. She had also, during the previous two years, had occasional sudden attacks of pain in the lower part of the chest so severe as to take her breath away.

The present illness began four weeks before I saw her, and was characterized by abdominal pain so severe as to require the use of morphia for its relief, felt more in the right side than on the other. This was associated with much nausea and vomiting, and the breath was extremely fetid. There had been considerable fever with the illness, and Dr. Norris had detected a tumor in the right side of the abdomen, which was very tender to the touch, and which he and Dr. Nichols believed to contain pus. The urine was scanty, high-

colored, and a specimen obtained at the time of our consultation was found to be stained with bile. There had never been any jaundice, and none was apparent to the eye at this time.

The abdomen was distended and tymanitic, not very sensitive to pressure except in the right side, where there was tenderness, both in the hypochondrium and in the right lumbar region.

This portion of the abdomen was occupied by a tumor continuous with the liver, and extending through the right lumbar region well round into that side; this did not move up and down with deep respirations. It being clear that suppuration was going on in the abdomen, probably connected with the gall-bladder, an operation was advised and accepted.

December 9, 1891, operation. Mrs. W. was etherized and an incision was made over the tumor parallel to the margin of the ribs. This opened the peritoneum just inside of the point where the inflamed, thickened and considerably enlarged gall-bladder was adherent to the parietes. The gall-bladder could be clearly made out along its anterior edge, but outside and behind it was held fast in an inflammatory mass that masked its outlines. The gall duct was thickened and enlarged to about the size of the little finger, but its walls were so resistant that palpation of it in search of impacted calculi was unsatisfactory. The most careful search failed to show any hard mass in it which suggested a stone.

The gall bladder was opened, giving exit to about two ounces of thick, glairy muco-pus. The cavity was trabeculated and more or less diverticulated. A careful search was made in it for calculi, but none were found. A probe passed along the duct was arrested before it had gone half-way to the duodenum, but there was no hard body to be felt at the point of arrest.

The gall-bladder was stitched up tightly to the peritoneum, a drainage-tube was introduced through the opening, and the rest of the wound was closed.

The patient had a good deal of retching and vomiting following the etherization. The pain was considerable, but was kept under control by the moderate use of morphia.

During an attack of vomiting the patient threw up three or four small biliary calculi, and a few days later several were passed in a movement of the bowels.

Improvement was slow but steady. She began to bear food well,

and the mass in the right side slowly diminished in size. About a month and a half after the operation a small biliary calculus escaped through the fistula. Two weeks later more calculi began to be discharged through the opening, and within the next month thirty-two little stones appeared in this way. All of these stones were small and much facetted.

At this time, while these stones were escaping, I was away, and Dr. Norris and Dr. Scudder, who were in attendance, found a hardness just to the outside of the fistula, which gave the feeling as if there were an accumulation of stones just under the abdominal wall; and the patient found that pressure over this spot forced the escape of the calculi. March 2d I etherized the patient for a thorough examination. After enlarging the fistula, it was found that the gall-bladder had shrunk down to a very small size, and the inflammatory mass about it had almost wholly disappeared. Just outside of the fistula, at the point where the stones were thought to have lain, was a cavity between the gall-bladder and the parietes. During this examination the finger penetrated without force through what represented the lower wall of the gall-bladder, into the general cavity of the abdomen Feeling through this opening in the direction of the gall-duct, the parts were found a good deal tied up with adhe·ions, but there was no special hardness or thickening to be made out.

It would seem probable that in this case, at the time of the first operation, the gall-bladder had already opened posteriorly and downwards, forming an abscess into which the stones escaped. Subsequently, as the abscess cavity contracted, the calculi were forced up to and through the fistula. The stones which were vomited and which passed through the bowels may have been in the cystic duct at the time of operation and have been masked by the swelling of the walls. In the absence of colic, however, at the time when they escaped into the duodenum, it seems quite as probable that they, too, were in the abscess cavity outside of the gall-bladder, and escaped into the bowel through some ulcerated opening.—*Boston Med. and Surg. Journal.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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THE PRESCRIBING DRUGGIST.

The present condition of those engaged in the retail drug business, with a few honorable exceptions in every town, is that of a merchant in sundries and notions, patent medicines, drugs, cigars, garden seeds and soda-water, about in the order stated. Some include paints and oils, but this business has nearly been abandoned by them, and others include stationery. The real scientific druggists are few and their number is yearly decreasing. There are numerous merchants in the drug line, whose knowledge of drugs is confined to the manufactured articles usually sold, but who would not know many of the leading crude drugs sufficiently well to make

purchases on their own judgment. Very few druggists come into the business now through the doors of a college of pharmacy as compared with the hundreds who pick up the business just as any other merchant learns his. The wonder is, therefore, that the druggist of to-day should do more prescribing than many physicians in active practice. The question arises how do they pick up the knowledge which they esteem sufficient to warrant their dosing customers. Most of them do not read the Dispensatories, one rarely knows the Pharmacopœia, a few of them take a druggists journal, but most of them read nothing but the literature that comes packed with the patent nostrums they sell. There is one other source of information which is often and improperly used—the prescriptions they compound for the doctor's patients. One can imagine the conceit of a young drug clerk who stands rubbing up the ingredients of the doctor's prescription whilst he plies the messenger with questions about the sick one for whom the medicine is designed, and so writes down in his mind the easy wisdom gained, to apply it to the customer who may be in a condition he estimates, or guesses, or believes, to be about the same as the one for whom the prescription has been compounded. The less he knows the more certain he is to try his newly gained wisdom upon the first customer who is willing to take his doses. Doctors generally do not know how greatly this evil has extended. The public looks upon every druggist as a doctor of more or less skill, and the druggist, instead of magnifying his own office, taking pains every day to make himself an indispensable ally of the doctor, allows himself to be dubbed with a title.

The Pharmaceutical Association of North Carolina is not fulfilling the expectations of the medical profession. Their disciplinary influence may be has never been called out, and may be the subject has not fairly been brought before their body, but instead of the occupation of a pharmacist having developed into that of a serious profession, as far as our observation goes, it is degenerating in North Carolina.

There are two remedies that suggest themselves: Reduce the number of drug stores to one for every four thousand people, devoting their sales exclusively to drugs, relegating seeds to the seed-dealers, cigars to tobacco stores and bar-rooms, soda-water to confectioners, notions to the dry-goods men, playing-cards and

stationery to the book-stores, and for self-repect, as educated pharmacists, refuse to sell patent medicines. What would then be left? The druggist could draw in his shop-room, reduce his rent expenses, clerk expenses, etc., and find time to make his own preparations, thereby restoring himself to the esteem of the profession, and then he would come nearer having that knowledge which would fit him for counter-prescribing. But this remedy will not be applied, because no one has the authority to reduce the number of drug stores, and there is no visible desire upon the part of druggists to be anything but merchants—bazaar merchants.

The second remedy is for the doctors to keep their own medicines. Our local druggists have let the art and science of manufacturing go out of their hands, and others have taken up the business on a large scale, placing at our disposal compact and elegant outfit of drugs, assuring accurate division of doses in palatable and portable shape, so that the doctors may carry to the bedside all they will need in ordinary cases, with many advantages to patient and doctor, the greatest of which being the score of economy to the patient. We do not know how near the doctors are to applying this remedy for the evils, but it will come if the druggists do not set on foot a reform in their business.

Unfortunately for these suggestions, neither the doctors nor the druggists are pharmacists of sufficient ability—the former to prepare his own drugs for ready use at the bed-side, and the latter to be a druggist in truth. The doctors, though, have the advantage of very tempting offers from manufacturing pharmacists for such supplies as they need, and more than half the druggists would have to quit the business.

Some of our readers will be surprised at the tone of this article, but it has been prompted by the repeated complaints we have received of late of counter-prescribing by the druggists. What action the Pharmaceutical Association took at its last meeting upon the overtures of the committee from our State Medical Society we do not know exactly, but if our informant is correct, next to nothing. Either the case was not properly presented, or the time has not arrived for either profession to work out a reformation of the evils.

Lest we do injustice to some of our friends in the drug business, we say, in conclusion, that a few of them are well trained pharma-

cists, who do a legitimate business and deprecate the necessity of being bazaar-merchants, but are compelled by multiplied competition to follow the pernicious course. It is more likely that physicians will rally to these few druggists, directing their prescriptions to be filled only by them, than that more radical measures will be at present undertaken. In the meantime the best men in both professions must be considering what is best to be done.

THE BRITISH VACCINATION COMMISSION IS FAILING TO MEET THE JUST EXPECTATIONS OF THE BEST FRIENDS OF VACCINATION.

We learn from the *British Medical Journal* (April 23d) that "fears are expressed on all hands that the results of the Vaccination Commission, which has been so long in session under Lord Herschell, will be extremely mischievous The most intelligent and best-informed organs of the press are strongly expressing the opinion, which we voiced some time ago, that the protracted character of the inquiry has been itself a mischief, inasmuch as it has formed a ground of suspension of activity in vaccination by the numerous boards of guardians, who are disposed to purchase immunity from annoyance from the anti-vaccinators by leaving the provisions of the law in abeyance. . . . There are many places where the vaccination law is rapidly becoming a dead letter, and where a relatively large proportion of the young people are unprotected from small-pox."

The same journal quoting from the *Standard* says: "There is every prospect that the sittings of the Commission will lead to a great increase of small-pox. The solitary good result the report can have is to force men who have been obtaining a dishonest livelihood by writing and lecturing against vaccination, despite their better knowledge, to adopt a new business."

This is discouraging news from the home of vaccination, whence we have drawn our inspiration and our knowledge. Decadence of the practice of vaccination in England is not what we have a right to expect from a country so solid and conservative in all matters appertaining to the public health. In America, where we are pro-

verbially neglectful of the duty of vaccination, until pushed by the appearance of small-pox at our very doors, where the people in all the States arrive at this and all other reforms after the most expensive methods, neglect of proper precautions is the rule. In medicine and in politics it is the same, but the people do finally arise in their majesty and consummate the needed reformation and then fall back into security to let their work move of itself until heroic efforts are again needed. But towards England we have looked with the assurance that there we had the pillar and ground of the faith towards which we could lean at any time.

It has become evident that not only as regards vaccination, but as to all other preventive measures, we need a great epidemic visitation to arouse the people to duty. If now the executive machinery which is designed to put into force municipal and personal prevention be crippled by neglect or opposition, there can be only a fearful looking forward to the day when pestilence will put in its sharp sickle upon the grain which is ripening for the harvest.

In North Carolina—in all the South—the practice of vaccination is at a low ebb; and in great America some of the teachers and writers of text-books giving a grudging paragraph to the practice, showing their ignorance and indifference. In two very able text-books on practice in our library, we find errors in dates and facts enough to convince one of the perfunctory character of the writing.

Dr. I. Wellington Faison has recently located in Charlotte. We wish him success in his new field.

Ovariotomy in a Patient in Her Eighty-second Year.—The *British Medical Journal* (April 23d) notes what is probably the oldest case of ovariotomy on record in the person reported to the British Gynecological Society. The cyst was multilocular and extended above the umbilicus. Convalescence was completed in about a month, and the patient is well enough to walk around her garden.

REVIEWS AND BOOK NOTICES.

PHYSICAL DIAGNOSIS: A Guide to Methods of Clinical Investigation. By G. A. GIBSON, M.D, etc., and WILLIAM RUSSELL, M.D., etc.; with 101 Illustrations. New York: D. Appleton & Co., 1891.

There is no work of which we have any knowledge that compasses within its pages—small 8vo. pp 375—so much clear, concise and accurate teaching. There are larger and more elaborate works, but the high-water mark has been reached in this little volume. The student of to-day is reveling in the very best of everything for his education, and may be confused by the professional reviewer who speaks so well of so many books; but he will blunder if he does not buy this book, if he does not already own Vierordt's Medical Diagnosis. The publishers have shown their appreciation of the text by doing the very best the Appleton's can do with a manuscript.

THE POCKET PHARMACY, with Therapeutic Index: A Resumé of the Clinical Applications of Remedies Adapted to the Pocket Case, for the Treatment of Emergencies and Acute Diseases. By JOHN AULDE, M.D. New York: D. Appleton & Co., 1891.

Much has been said lately adverse to the city druggists who, while serving as pharmacists to the doctors, by filling their prescriptions, have been unmindful of old Buleyn's admonition: "The apothecarie must be mindful that he is but the physitian's cook." Some of them are doing the practice for their neighborhoods, keep a hypodermic syringe for administration of medicines subcutaneously, keep a thermometer for estimating fever, contrary to law, and some of the doctors are getting tired of it and intend to keep their own medicines. This book of Dr. Aulde's, if not intended to help in this movement, will be good to commence with. His list of medicines is very small, and contains favorite medicines that would not be esteemed so highly by others. He has selected twenty-four medicines to be used in the form of tablets, and gives short directions how to apply them. He takes one formula and applies it to 39 diseases. Here it is: Acetanilid 70 parts, caffeine 10 parts, sodium bicarb. 20 parts. The tablet made from the above contains

½ grain, being approximately ⅓ grain of acetanilid, 1-20 grain of caffeine.

Arm a doctor now with a modern satchel with cunningly devised interior, he can take to the bedside of his patient everything he can possibly need in less than 10 pounds weight, save the patient the loss of time and inconvenience of sending a servant to the drug store, apply the remedy on the spot to meet the condition of the patient, have less wasted medicine, and get rid of the phalanx of bottles that stare us all in the face when we have a chronic case.

The book is not the best of its kind, but will give some new ideas and set some of us in a new direction.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX: A Work of Reference for Medical Practitioners for 1892. Tenth Year. New York: E. B. Treat. [Price $2 75]

This work is compiled by a corps of editors and contributors, thirty-two in number, with Percy Wilde, M.D., as editor, and P. Watson Williams, M.D., as editorial Secretary.

We find here a larger number of current "remedies" than we find elsewhere. It resembles more the secondary list of the Dispensatory, and makes the impression upon the reader that the reporter has snapped his Kodack on the living enthusiastic declarations of the active young men who are always trying new remedies. One gets so tired of reading abstracts like this: "Kghoriski-Nmodanski says of exstrophine-meta Hexaoxydiphenil that its particular on the nerve-endings of the inhibitory," etc., etc. The learning falls on our ear like the famous but somewhat stereotyped colloquy of Ephraim Jenkinson in the Vicar of Wakefield, who caught the old Vicar once with his wise utterance: "The world is in its dotage; and yet the cosmogony, or creation of the world, has puzzled philosophers of all ages," but when he tried to pass it off the second time even the learned quotation from Ocellus Lucanus was not enough to ensnare the credulous vicar.

But our book has its merits, and it is not the fault of the compilers that it is so full of new chemicals, but rather its merit that the therapeutical world has been drag-netted for its treasures, the fault is in us, who, although reviewers, and therefore know how to write books better than their authors, cannot remember the medical properties of chemicals in words of more than six syllables.

The arrangement of the volume is alphabetical by diseases, the ample index making the search for the remedy easy.

The editor has wisely reproduced a paper from Mr. John Hodgkin, F.L.S., F.C.S., giving the graphic formula for the numerous new synthetic remedies, which ought to be studied by the physician who desires to go a little into the mysteries of organic chemistry, and see the source of the unpronounceable and unavoidable jargon of its nomenclature.

A useful table is given, from Hebling's Modern Materia Medica, of the dose and solubility of some of the best known of the more recent remedies.

The publisher has admitted to his advertising pages improper advertisements—"Gleet Specific" and "Pond's Extract," for instance—which will be an offense to the eye of educated physicians, otherwise the book is worth the price asked for it.

PRACTICAL MIDWIFERY: A Handbook of Treatment. By EDWARD REYNOLDS, M.D.; with 121 Illustrations. New York: William Wood & Co., 1892.

Why another book on midwifery? This the author answers that, with all the activity in literature of this branch, "it is a curious fact that there has hitherto been no attempt to render the details of obstetrical practice readily accessible to the student.' "A five year's experience in the superintendence of the practical work of the advanced students of the Harvard Medical School, in their daily attendance upon *by far the largest obstetrical clinic in America* (italics by the editor), has fully demonstrated to him the importance in this deficiency in our literature.

We do not hesitate to say that the author has made good his claim, and the student has in this volume a safe handbook.

The pathology of labor and the puerperium are especially well designed to place before the student practical hints of actual practice. The care of the breasts, for one item, is fully and carefully taught, so that the student is able at once to master one of the minor items, as it is usually considered, but one that is important to the woman. It is the mastery of just these details that makes a practitioner acceptable to the most important of all his patients, the mothers.

We took this book up with some misgivings as to its mission, but believe it to be, after a careful perusal, a first-class book for the student, and not as expensive as some of the older text-books.

A MANUAL OF DISEASES OF THE NERVOUS SYSTEM. By W. R. GOWERS, M.D., F.R.C.P., F R S. Second Edition, Revised and Enlarged. Vol. I. DISEASES OF THE NERVES AND SPINAL CORD; with 180 Illustrations Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St, 1892.

No book on diseases of the nervous system has given so much satisfaction as this one It has been established in the confidence of those who have specially studied the diseases of this class, and is as frequently quoted from as authority as any work in any language. In this edition 150 pages have been added to the first volume, including new sections on multiple neuritis, beri-beri, brachial neuritis, senile paraplegia, Morvan's disease, and the peroneal type of muscular atrophy, as well as extensive additions to the account of the functions of the spinal cord and the symptoms of its diseases of syringo-myelia, tumors, muscular dystrophy, traumatic lesions, etc.

The observations, which the author makes on nerve stretching, is about to be realized in the experience of the observing physician that nerve stretching in locomotor ataxy, and the extension of the spinal column in the same disease, "will also probably before long be forgotten."

The second volume will soon be issued. It deals with Diseases of the Brain and General Diseases of the Nervous System.

A HAND-BOOK OF OBSTETRICAL NURSING FOR NURSES, STUDENTS AND MOTHERS. By ANNA M. FULLERTON, M.D. Philadelphia: P. Blakiston Son & Co, 1892.

A TEXT-BOOK OF NURSING, for the Use of Training Schools, Families and Private Students. Compiled by CLARA S. WEEKS-SHAW. Second Edition D. Appleton & Co., New York.

It has not been many years ago that it would have puzzled a doctor to have found a book on obstetrical nursing that he could have conscientiously put in the hands of nurses who were inquiring after the knowledge. Now we have many. This book, written by a female physician, we can heartily recommend to be placed in the hands of nurses as a safe guide. It is beautifully printed, has marginal paragraphic synopses, making it an easy reference book.

The Text-Book of Nursing, by Mrs. Week's-Shaw, has already

been noticed by us in the first edition. In addition to its being a text-book of the first order, it has special merit as an emergency reference book. It would be a healthy change if in the household this work would be substituted for many of the works written to enlighten the head of the family about what to do until the doctor comes.

A Practical Manual of Diseases of the Skin. By George H. Rohé, M.D. Price $1.25. Philadelphia: The F. A. Davis Company, Publishers, 1231 Filbert St.

This is a compact volume on diseases of the skin belonging to the Physician's and Student's Ready-Reference Series. Dr. Rohé is a practical writer and has given little space to theoretical speculations.

Eighty pages of this small work is devoted to the cutaneous manifestations of syphilis, but not a line to vaccino-syphilis, or rather, his index says nothing about it.

Is it not time now that authors on skin diseases should say something about vaccination? If the subject has a proper place it is in a work devoted to diseases of the skin. We are sure that the medical student of to-day knows less about vaccination than any other subject, excepting chemistry, and such instruction is much needed.

Our book abounds in many good formulæ.

Consumption: How to Prevent It, and How to Live with It. Its Nature, Its Causes, Its Prevention, and the Mode of Life, Climate, Food, Exercise, Clothing Necessary for Its Cure. By N. S. Davis, Jr., A.M., M.D. [Price 75 cents.]

Dr. Davis has given a very useful book to place in the hands of consumptive patients or their friends, to give them some intelligent aid in caring for the sick. This booklet, if reduced to a cheaper pamphlet, would be exceedingly valuable to distribute among our patients as a tract. It would defend them from the imposition of the countless sharks who hover around the procession of consumptives who make their annual migrations to the South and to California, like the man eater sharks among the shoal of mullets off our coast in September. The book is published by F. A. Davis, Philadelphia.

A MANUAL OF VENEREAL DISEASES. Being an Epitome of the most Approved Treatment. By EVERETT M. CULVER, A.M., M.D., and JAMES R. HAYDEN, M.D.; with Illustrations. Octavo. Pp. 294. Cloth. Philadelphia: Lea Brothers & Co., 1891.

The authors have succeeded admirably in preparing a very practical and valuable treatise on the three venereal diseases, Gonorrhœa, Chancroid and Syphilis; and it is put in condensed form by eliminating long histories and cumbrous statistical tables. The work shows much original thought, at the same time that due attention is given to the best methods of treatment advised in the larger text-books. The book is fraught with much sound advice, and if given a place on the library shelf will almost surely bear the mark of frequent reference.

CYCLOPEDIA OF EMINENT AND REPRESENTATIVE MEN OF THE CAROLINAS.

This is a ponderous work, in two volumes, handsomely bound in leather, full gilt, with numerous portraits. We find here portraits of many distinguished living medical men of North Carolina, and biographical sketches of many without the portraits. We have the same fault to find with this volume that we have with all biographical collections made up by subscriptions.

WE FAILED TO GIVE THE PROPER CREDIT.—In the April number of the JOURNAL we reprinted the excellent article, "*Tuberculosis in Cattle; Tuberculin as a Diagnostic Agent*," without giving credit to the *Medical News*. It also appeared in the table of contents as an original article, although in the body of the JOURNAL it was placed under the head of "Selected Papers." The article also bore internal evidence of having been extracted from another journal. We desire to make amends to the *Medical News* for this apparently reckless appropriation of our neighbor's goods, for that journal deserves a great deal of credit for giving its readers fresh and carefully selected material, and we showed our special appreciation by reprinting this unique article entire, because of the great practical bearing it had on some of the difficult problems of the day in pathology and preventive medicine, and we would be the last to do injustice to its able editor by claiming what does not belong to us.

CURRENT LITERATURE.

WHAT IS A "FELON"?

Burrell (*Boston Med. and Surg. Jour.*, February 4, 1892) is convinced that the term "felon" is very loosely applied to a variety of inflammatory diseases of the finger, and suggests that this term should be abolished and an anatomical classification of the inflammatory affections of the finger be adopted. The classification he proposes is: (1) Dermatitis; (2) paronchia; (3) cellulitis of the finger; (4) suppurative thecitis; (5) periostitis or ostitis of the phalanges. While he feels sure that most practitioners distinguish these various affections, he maintains that the distinction is frequently not made in name, and that the common text-books on surgery neglect to clinically distinguish them. The treatment of these various conditions differs. Dermatitis requires local applications; paronchia, an incision through the nail or its removal, with a proper dressing afterward; cellulitis, a limited incision into the pulp of the finger with evacuation of the pus; suppurative thecitis, an incision through the sheath of the tendon, evacuation of the pus, antisepsis, and immobilization of the fingers, hand and arm; peri ostitis or ostitis, an incision down through the periosteum at the earliest moment. These affections run into one another, and it is at times impossible to make a clear distinction between them, but the distinction is needed, for an incision down to the periosteum is worse than useless in dermatitis, and not necessary in any except in periostitis or ostitis, where such an incision is imperatively demanded.—*New York Medical Journal.*

STOP SPITTING.

The modern gospel of prophylaxis teaches that phthisis can be abolished from the face of the earth if only people will stop spitting. Says Dr. T. M. Prudden:

"If the vile and increasing practice of well-nigh indiscriminate spitting goes on unchecked in nearly all assembling places and

public conveyances; if the misguided women who trail their skirts through the unspeakable and infectious filth of the street are to be admitted uncleansed into houses and churches and theatres; if theatres and court-rooms and school-houses and cars are to remain the filthy lurking-places of contagia which their ill ventilation and their mostly ignorant and careless so-called cleaning necessarily entail; if in sleeping-cars and hotel bedrooms the well are to follow consumptives in their occupancy without warning, or even the poor show of official disinfection; if in ill-ventilated and ill-cared for dwellings the well must breathe again and again the dust-borne seeds of tuberculosis; if no persistent warning is to be given to the ignorant of the dangers which lurk in uncleanliness—then our task will be most complex as well as difficult in limiting the contagiousness of tuberculosis."

Of course cleanliness and plenty of water are necessary; but, after all, it is the expectoration which carries the germ and promotes the spread of disease. Spitting, it seems, is not only a vile, but an increasing, habit. This is an unfortunate social fact which reformers do not seem to have grasped, despite its noxiousness. Shall we not have to have a Society for the Prevention of Expectoration—except into sanitary spit-cups? If one could stop the spitting habit, prevent the spread of consumption, and finally stamp it out, he would be greater than a tariff reformer.—*Med. Record.*

EVIL EFFECTS OF CAUSTICS ON THE UTERUS.

Cittadini (*Bullet. de la Soc. Belge de Gynec. et d' Obstet.*, No. 5, 1891) states that a patient, aged 28, was treated in Paris for "hæmorrhagic endometritis. On December 31st, 1890, a stick of chloride of zinc was introduced into the uterine cavity. She was discharged on January 16th in good health; the sound could be passed with perfect ease. The period, due on January 30th, did not appear till February 8th, and the cervix suddenly became contracted. By the end of May the sound could not be passed more than 1 1-5th inch; the stricture seemed to be situated at the os internum. The period continued regular, so that the stricture could not have been impermeable. In the summer of 1891 the patient

consulted Dr. Jacobs, of Brussels. She had profuse purulent leucorrhœa, hypogastric and lumbar pains, and painful defacation, but micturition was not affected and the period not particularly painful. There was a tumor to the right of the cervix, and deposit in Douglas's pouch and to the left of the cervix. The sound could not be passed beyond the stricture. Dr. Jacobs's diagnosis was "right peremetritis and cystic salpingitis, complicating purulent endometritis with uterine stenosis." Abdominal section was performed; the tumor proved to be a suppurating broad-ligament cyst; the tube was occluded at its abdominal end, and contained mucopus, but was not dilated. The right ovary had undergone sclerocystic degeneration. There seemed to be total absence of the left tube and ovary. The patient recovered. Cittadini observes that whatever might be the precise relations of the stenosis to the disease of the appendages, it is certain that the cauterization caused the stenosis.—*Brit. Med. Jour.—Med. and Surg. Reporter.*

UTERINE HEMORRHAGES.

Terillon says that when a woman less than twenty-seven or thirty years of age suffers from hemorrhages she will not have fibroids, but rather should one think of an abortion, so often passed unrecognized, a salpingitis or a hemorrhagic metritis. It is exceptional to meet with an epithelioma. From 35 to 40 years the causes of hemorrhage are many: fibroids, epithelioma or sarcoma·polypus, metritis, abortion or salpingitis. Here diagnosis is more difficult. It is often impossible to recognize small interstitial myomata and small endo-uterine polypi. In all cases examination of the blood lost will furnish important information. In hemorrhages due to fibromata or salpingitis, the discharge is almost pure blood. In cases of epitheliomata or fibromata undergoing degeneration, the blood is mixed pus and mucus. Besides, there is in the meantime, during the intervals between the hemorrhages, a watery discharge mixed with yellowish clots, which leaves a brownish stain upon the linen. These spots upon the linen yield important results; if the hydrorrhoic fluid has a fœtid odor peculiar to itself, then the diagnosis of epithelioma is quite certain. In sarcoma this odor appears late.

After the menopause the cause of hemorrhage is nearly always intra-uterine. A more or less periodic discharge takes place, which leads the patient to think that her periods have returned. In nine cases out of ten physical examination will reveal the presence of a sarcoma or epithelioma. One should not forget, however, to keep in mind ovarian cysts developing late and an old fibroid retrogressing.

As a treatment he recommends: Repose in bed, with pelvis elevated. This simple measure alone sometimes causes the flow to cease. Hot water has a hemostatic action, and injections may be given either intra-uterine, when the cavity is dilated, or simply into the vagina. The water injections may contain an antiseptic. If this fail, then tampon. Hypodermic injections of morphine or rectal injections of opium as well as ergotin subcutaneously may be used. One hemorrhage leads to another, thus producing a state of artificial hemophilia. In patients who suffer from uterine hemorrhages, one should advise exercise in the open air, douches, friction of the entire body and salt-water baths. Sun baths are used in Russia. The patient lies in an arm-chair, covered with a black cloth, the head protected with a parasol. This causes profuse sweating, the hemorrhages cease and the general nutrition improves.—*Am. Gynæco. Journal.*—*Gaillard's Med. Journal.*

ANCIENT TEACHING OF PHARMACY.

In a scholarly history of medical education from the most remote to the most recent times, by Dr. Theodore Puschmann, Public Professor in Ordinary at the University of Vienna, the author affords a glimpse of how pharmacy was taught in the mediæval ages.

Opportunity was afforded for the study of medicinal plants in the gardens adjoining many of the monasteries. Many doctors, moreover, laid out gardens of this kind, as Matthæus Sylvaticus at Salerno, and the Magister Walter in Venice, to whom the Senate assigned a site for the purpose. But the universities at this early period did not yet possess this valuable aid to teaching, and the knowledge of medicinal plants was chiefly communicated by theo-

retical teaching and by books which were sometimes embellished with botanical drawings. The students learned how to recognize drugs and how to prepare remedies in the dispensaries, which arose in all the larger towns from the thirteenth century onwards. Stanpeis recommended students and young practitioners frequently to visit dispensaries with this object. Felix Platter narrates "that, in addition to continual studying and attending of lessons in Montpellier, he made a frequent practice of observing the preparation of all kinds of medicines at the dispensary," and he collected many herbs which he "neatly" wrapped in paper.

The apothecaries got the greater part of their drugs from abroad, and a stirring trade developed in these articles in the middle ages, traveling from the east through Italy. In addition to medicaments, the apothecary shops contained other articles for sale, as various spices and aromatics, wax candles, paper, sugar and sweets; in many places, especially in Germany, the apothecaries carried on at the same time the trade of ginger-bread bakers, and were bound to send every year in Lent, as a present to the councilors, all kinds of dainties. A contract dating from 1424, in which an apothecary undertook to supply the necessary medicaments for the Ducal Court at Este, gives us information concerning the drugs which at that time were kept in store in the dispensaries and were chiefly used. This information is supported and completed by certain statements made upon the contents of a dispensary at Kosel, in Silesia, in 1417, and upon the drugs and medicaments which the apothecaries and in Frankfort-on-the-Main sold in 1450. Certain drawings in the Dresden Codex, and in various early editions of medical works, give a clear picture of the arrangements of the dispensaries of that period.

The apothecaries in Italy and France as early as the thirteenth century formed confederacies, which framed their own laws and kept a strict watch to see that their rights were not encroached upon. In Germany the first apothecary shops are said to have been erected in Wetzler in 1283, at Sweidnitz in 1248, at Würzburg in 1276, at Augsburg in 1285, at Esslingen in 1300, and at Frankfort-on-the-Main in 1343. In the fifteenth century, not only every considerable town, but many also of the middle-sized and small ones, had apothecary shops, as, for example, Znaim, Pressburg, Krems, Budweis, Olmütz, Brunn and Kuttenberg. The education of the

apothecaries was that of men training for a handicraft. The works of Nicolaus Myrepsos, Nicolaus Praepositus, Christopher De Honestis, Saladin of Asculum, Quiricus De Augustis, and others served chiefly as the text-books.—*Bulletin of Pharmacy.*

PUERPERAL FEVER.

In puerperal fever we have an invasion of the system by septic material. It is septicemia with the puerperal condition superadded. How is the septic process kept up? There are three principal sources or distributing points of infection in the recently-emptied uterus.

1. *Decomposing blood-clots at the placental site.*—Where the placenta was attached is left a rough raw surface, often with adhering coagula; when the uterus does not contract well air enters the cavity and putrefaction takes place.

2. *Retained fragments of the secundines.*—A portion of the enveloping membrane is sometimes turned off and left behind in the uterine cavity. Too great haste in delivering the after-birth is answerable for this accident in the majority of cases. The delay that sometimes elapses between the birth of the child and the delivery of the placenta is irksome both to patient and physician; a bad quarter of an hour. The woman is exhausted, the friends anxious, you want it over with, and the temptation to be precipitate may be hard to resist. Weary of waiting, the accoucher tugs at the cord, it gives way, he hooks his fingers round the placental mass or into its substance, and finally manages to extract it piecemeal. But the conservative physician resorts to no active measures, beyond the Crede pressure, until the placenta shows signs of emerging. He then turns the mass over on itself so as to give it a spiral motion, by which manœuver the after-coming membranes are twisted and cohere like a rope.

3. *Laceration of the cervix.*—A torn and ragged cervix offers an easy point of entrance for infection, particularly where, as is frequently the case, it is sloughing from the effects of long-continued pressure and traumatism. The tearing is at times so deep as to extend through the internal os and into the broad ligaments, absorp-

tion of septic materials in such cases can readily be understood. Lesions only of the perineum and lower part of vagina are not, as a rule, productive of septicemia.

How does septic material enter the blood? It is taken up by the lymphatics and venous sinuses. The higher up in the parturient canal the source of infection is located, the more virulent is the resulting septicemia. When the chief point of entrance is through a lacerated cervix only, the trouble is often limited to a metritis, and is more likely to be local and circumscribed. For the lymphatics of the cervix are not so numerous as those of the uterine corpus, and their action may be impeded by the inflammatory processes they themselves set up, as shown by Virchow. But the septic invasion that comes from a mass of foul clots in the uterine cavity is generally rapid and overwhelming, quickly producing parametritis and peritonitis and general systemic poisoning.

Virchow describes the severer form of the disease as "malignant internal puerperal erysipelas." The lining membrane of the womb becomes softened and necrosed and covered with a yellow diphtheritic deposit. The ragged edge of the torn cervix are swollen and ulcerated, and the muscular and connective tissues of the whole parturient tract become œdematous and undergo inflammatory changes which spread to the other pelvic structures and the peritoneum.

Treatment.—There is no condition in the whole range of medicine and surgery where bold measures are more urgently demanded or more likely to be crowned with success. Empty the womb of its accumulated filth. Put the patient on the table and scrape out the cavity with the dull curette. If done in time, improvement will invariably follow soon after, and the temperature fall several degrees. In this condition the womb can be scraped with impunity. That old dread of meddling with the puerperal uterus, though all the scenes in the drama of blood-poisoning were being enacted before his eyes, no longer withholds the hands of the obstetrician.

Submit the uterus then to the same surgical treatment that you would any septic cavity. Curette fearlessly the interior until certain that nothing detachable can possibly be left behind. If moderate hemorrhage follow, so much the better. Then flush the cavity with a stream of hot water through a bulb-syringe and inject four ounces of peroxide of hydrogen before withdrawing the tube·

Repeat this flushing process twice daily. The reflex uterine irrigator of Dr. Howard Kelly, which I here show, is an excellent instrument for the purpose.

The medical treatment consists of strychnine, a thirtieth of a grain twice a day, and alcoholics; avoiding opium as far as possible. The best antipyretic is a five-grain powder of acetanilid.

I will, in conclusion, briefly recount the features of a case occurring in my practice within the past month. A young primapara was seized with puerperal fever on the second day, the temperature rapidly rising, till on the tenth day it oscillated between 104° and 105°. They then discharged the attending physician, a very competent man, and called me in. I found her in a muttering delirium, drowsy and sallow, with a pulse of 140° and temperature 104.4°. There was some swelling and tenderness over the abdomen. Visiting her later that day, the thermometer marked 105°. I procured an assistant at once to administer chloroform and placing her in Sims' position, scraped from the uterus two tablespoonfuls of foul clots and shreddy material. Both cervix and perineum were badly lacerated, and the whole generative tract covered with patches of white deposit. Taking a bulb-syringe, I passed four inches of its tube into the uterus and injected half a gallon of hot water, following it with four ounces of peroxide of hydrogen. In twelve hours the temperature fell from 105° to 101½°. This intra-uterine treatment was repeated twice a day. On the next day there was some febrile reaction, but two days after the temperature marked 99½°, and her convalescence went on uninterruptedly thereafter.—*W. H. Hays, M.D., in Pacific Medical Journal.*

UNTOWARD EFFECTS FROM THE SALICYLATE OF SODIUM.

Dr. F. W. Mann reports in the *Medical Record* some remarkable psychical symptoms following an overdose of this drug. The patient, a laborer of German birth, required treatment for a subacute rheumatic attack, for which was ordered a mixture containing two drachms of the salicylate in four ounces of mint-water. This was to be taken in teaspoonful doses every second hour. Like

many other Germen of his class, the patient thought that the more rapidly the remedy was ingested the more speedily the cure would be accomplished; he proceeded to swallow the whole four-ounce mixture in the course of four hours As the result of this overdose the patient began to have hallucinations, especially delusions of persecution. During the evening of that same day he became so troublesome to his friends that they felt constrained to call the aid of the police. The patient had to spend the night in a cell. The expectation was that the man would be consigned to a lunatic asylum on the following day. The history of the excessive dosing with the salicylic mixture having been taken into consideration, the man was sent to a hospital. During the next four days the patient comported himself very much like a case of delirium tremens. Visual and auditory hallucinations possessed him. He refused all food, giving as his reason that he was soon to be hanged and that therefore it was useless to take nourishment. He gazed in a mirror and promptly struck it a blow with his fist, and broke it on account of the demoniacal visage which his own reflexion brought to view. After this physical restraint became expedient, and the man was kept in his bed. His attention was solely and constantly given to the thought of freeing himself from persecution and constraint. He was not coarse of speech nor rough in action. When spoken to he responded pleasantly. Respiration was not notably depressed, pulse 130. At the end of the 5th day the delusions gradually passed away and the man returned to his usual state of health. His rheumatism had disappeared also. The man will be more heedful hereafter to follow the instructions of his physician. Hallucinations are a not infrequent result of salicylism, but they have not been, as a rule, so long-continued as in this instance with an overdose of the drug no greater than that here reported.—*Journal Am. Medical Association.*

ASPIRATION FOR RELIEF OF VESICAL DISTENSION—IS IT ALWAYS PRACTICABLE?

Dr. Keyes stated that he saw the patient after aspiration had been attempted and failed. Percussion over the abdomen gave

flatness extending four or five inches above the pubes, and he was very much surprised that Dr. Fuller had not been able to reach urine. As soon as the patient was placed on the table, however, and before he had taken chloroform, whether from abdominal contraction or from some other cause, the flatness disappeared excepting over a very small area, and above that the resonance was tympanitic. Chloroform was administered, and without very much trouble an instrument was made to elude the false passage, and fully three pints of very foul urine were drawn off. The man was semi-comatose and a formidable operation was not justifiable. Dr. Keyes said that the only similar case he knew of was one reported, he believed, by Dr. Stein some time ago, excepting one in which he (Dr. Keyes) recently took out both lobes of the prostate; the two lateral lobes were enormously enlarged and jutted out into the bladder and rubbed against each other. In Dr. Stein's case there was considerable enlargement of the prostate, but it was confined to the upper part of it

Dr. Bangs considered the case reported by Dr. Fuller a very unusual one. He has seen a number of cases where there was retention of urine, with a false passage; whenever he has found it necessary to resort to aspiration, he has never met with the difficulty described by Dr. Fuller. Dr. Bangs inquired what the members thought of aspiration as a method of emptying the bladder; whether a bladder could be satisfactorily washed out by that means. He has often employed it to relieve temporary distress, but has never felt satisfied, surgically, until he had entered the bladder from below, or by means of a radical operation.

Dr. Taylor thought that aspiration was simply a means to be employed in an emergency, when it is impossible to enter through the urethra, to relieve vesical tension, and to allow the parts to adapt themselves to more successful manipulation by instruments later on.

Dr. Fuller stated that he had seen one case where aspiration was repeated forty-eight times. The urine remained sweet.

Dr. Keyes considered aspiration a misfortune in many cases, and thought that the less said about it and its possibilities the better. In the majority of cases, if a sufficiently severe physical condition exists to occasion retention, radical measures are called for, and the excuse might as well be taken to secure drainage and relieve the

physical obstacles, unless, as in this case, there is a good reason for not doing so.—*Dr. Eugene Fuller, at the New York Academy of Medicine.—Jour. of Cutaneous and Genito-Urinary Diseases.*

ON THE EMPLOYMENT OF DRYING LINIMENT IN THE TREATMENT OF SKIN DISEASES.

The medicated use of gelatines, as recommended years ago by Pick, is admittedly attended with some discomforts, and is not altogether satisfactory. The gelatine has to be warmed up every time it is employed, to be immediately and very uniformly applied to the part—a procedure of some difficulty and sometimes involving not a little pain—and the rapidity with which it dries reduces the possibility of absorption of any drug incorporated in it to a minimum, as the film is not in very intimate contact with the skin. Pick now recommends gum tragacanth as a basis, substance which, in contrast to gum arabic, does not dissolve in water, but melts down into a sort of a syrupy mass, which may be very easily smeared over the skin, and which on drying leaves a thin, delicate and colorless film. He considers the following proportions the most generally useful

Gum tragacanth	5 parts.
Glycerine	2 "
Distilled water	100 "

and denominates the basis thus obtained a *linimentum exsiccans.* It may be prepared with cold or hot water, but preferably with the latter, as a thoroughly antiseptic preparation is thus obtained, which is not only easily applied, but as easily washed off with a little tepid water. Its application gives rise to a sensation of coolness which is specially noticeable and gratifying when it is used to congested or inflamed skin. Its advantages over fats is that it is not greasy, does not spoil the clothes, does not disfigure, and no further dressing over it is necessary. Remedies which are soluble in water can be incorporated in the liniment by being first dissolved in water used for its preparation. Substances insoluble in water can be rubbed into the basis in a fine state of division with very

satisfactory results. Oily substances only alter its consistence and retard its drying to a perceptible degree when in very large proportions. Ichthyol, styrax, Peru balsam, oleum fagi, cadini, rusci, etc., may thus be used from 5 to 10 per cent. Insoluble substances, such as chrysarobin, zinc oxide, which precipitate, red and yellow oxide of mercury, iodoform, iodol, salicylic acid, etc., give the consistence of paste to the preparation if in large proportions, but without altering its characters, except perhaps by increasing the rapidity with which it dries up, and thus enhancing its value. The preparations thus obtained are very stable, and produce no constitutional symptoms, even when their local action is energetic. An advantage of these drying liniments claimed by Pick is that they are easily applied, and may be used in out-patient practice.— *Viertelghar, J. Derm.*, June, 1891.

THE TITLE OF PROFESSOR AND DOCTOR.—Mr. Huxley, says the *Lancet*, though M.D. of Breslau and M.B. of the University of London, and the happy possessor of endless doctorates of all sorts, objects to the title of "Dr." Huxley. He can stand being called Professor, but draws the line at "Dr," which many men seem to value so highly. The *Lancet* seems to think it so very natural that so great a man as Dr. Huxley should not wish to be called "doctor." It strikes us as partaking a little of snobbishness. The truly great man will not be very much concerned whether the title usually given him is "Mr." or "Major" or "Dr." or "Professor." The Hon. Chauncey M. Depew bears the indignity of a doctorate genially, and does not complain when addressed by his title. There have been other great men who were called doctors; so let Dr. Huxley not worry lest he be occasionally thought a member of the unworthy throng. Or if he is really distressed, there is, we are told, a prospering organization in this city "for the suppression of the title of Doctor among medical men." Let him join their ranks.—*Medical Record.*

IMPERFORATE ANUS.

TOISNOT, N. C., May 9, 1892.

Messrs. Editors North Carolina Medical Journal:

DEAR DOCTOR:—I send you below a statement of my case of "Imperforate Anus"

On the 19th day of January, 1892, I was requested by a negro man, living about one mile from my office, to examine his infant, a male, which he said did not seem to be doing well.

I found the child suffering from nausea—abdomen very much distended, and there were straining attempts to evacuate the bowels. The parents told me that the bowels had not moved since it was born—4 or 5 days before my visit. I concluded to give an enema and made the arrangement for the procedure. No anus could be found, and of course the idea of injecting the rectum had to be abandoned. The entire space between the perineum and the coccyx was as smooth and seemingly as firm as the perineum itself. There were light-colored vertical, transverse and diagonal lines from 1 to 1½ inches long where the anus should have been.

I made some measurements with my eye, and cut through the skin along the vertical discoloration, where I thought the anal opening should be, and struck the nail on its head. The gut was revealed and I thought the work was complete, but found on attempting to wash out the rectum, that I had only opened a blind pouch—formed by adhesion of the inner surfaces of the gut above and the formation of skin below. The pouch, I suppose, was large enough to contain a large-size hazel-nut. The adhesion, which was perfect and about 2 inches in length, was dissected out or broken up with an ordinary scalpel and my finger—doing the work through a rectal speculum. Bowels moved immediately after removal of the obstruction. Hemorrhage was profuse, and I was afraid that this alone would be sufficient to cause death. Reunion of the walls of the bowel was prevented by the insertion of a stick of castile soap and held in position by a T bandage. The bandage and soap were removed night and morning and the wound cleansed with tepid water. Small doses of Dover's Powder prevented troublesome attempts to empty the rectum. Healing was prompt and entirely satisfactory, and the patient discharged in a few days with

all the functions of the rectum fully restored. All this was done in the woods and by a torch-light, without an anæsthetic and no physician to advise and help, using the father's lap for a table and his strong arms to steady the patient.

W. P. MERCER, a country surgeon.

ANTIGALACTAGOGUE ACTION OF ANTIPYRIN.—Guibert has found that the lacteal secretion can be completely suppressed in from two to six days by antipyrin in daily doses of thirty grains or more, given in divided portions every two hours. After thus employing antipyrin in nineteen cases, it is regarded as harmless and of real service where it is desired to suppress the milk secretion.—*Le Practicien.*

BLACK SNAKEROOT FOR DYSMENORRHŒA AND OVARIAN IRRITATION.—From the results obtained in a series of cases Dr. James Brunton (*Practitioner*, xlviii, 4, p. 265) concludes that *actea racemosa* (black snakeroot) possesses anodyne properties and may, with advantage, take the place of bromides and opiates for the pain of dysmenorrhœa. In addition, the drug has a direct action on the uterus, increasing the menstrual flow when scanty. It is best administered in doses of thirty minims, thrice daily, beginning three days before and continuing throughout the period. It is sometimes useful in menorrhagia and metrorrhagia. Its action is almost specific when there are ovarian pain and nervous depression.—*Medical Progress.*

THORACOCENTESIS.—At a meeting of the French Academy of Medicine, Dieulafoy (*L'Abeille Medicale*, 1892, No. 18, p. 137) advocated the employment of thoracocentesis whenever the volume of fluid in the pleura furnished the indication. An effusion of 1800 c.mc. (three pints and a half, plus) marks the limit. Dyspnœa as an indication cannot be relied upon, for death may result from the volume of the effusion in the entire absence of dyspnœa. Dieulafoy denied that thoracocentesis, properly performed, led to the conversion of a simple into a purulent effusion. He related that he had performed thoracocentesis almost four hundred times, without empyema developing in a single instance.—*Med. Progress.*

READING NOTICES.

"I HAVE used Peacock's Bromides in my practice for some time, and I would not like to be without it; in fact, I do not know of anything that would take its place in nervous conditions.

Trufant, Mich. J. T. KILBURN, M.D.

WE beg to call the attention of the Medical Profession to Bœhringer's Muriate of Cocaine, which is the handsomest and purest preparation put on the market. Every conscientious physician should use it, as it has proven to give the best and quickest result.

W. P. CLEARY & BŒHRINGER, Boston.

"THE PHYSICIAN'S BATTLE."—*Gentlemen:*—Please send me some Antikamnia Tablets, that I may test their convenience, not their merits, for I have tested Antikamnia so thoroughly for six months past that it is no longer an experiment with me. It strikes directly and effectively, without bad results, at the two most characteristic points in disease, namely, Fever and Pain. With these two points well under control, the physician's battle in acute attacks is nearly won. Respectfully,

Lewisburg, Pa. PULASKI F. HYATT, M.D.

WE desire to call the attention of our readers to the new advertisement of Reed & Carnrick in this issue. This firm have spared neither labor nor expense to perfect their Infant Foods in keeping qualities by sterilization and by placing them in hermetically sealed containers. They claim that Lacto-Preparata, an all-Milk Food, for young infants, and Carnrick's Food, composed of half Lacto-Preparata and half dextrinized wheat, for use after six months of age, have now practically reached perfection in keeping qualities. Lacto-Preparata almost perfectly resembles human milk in character, composition and taste.

AFTER several year's experience with the "Three Chlorides," in my Gynecological and Obstetrical practice, I can cheerfully and conscientiously say that I am well pleased with its effects in Metritis and also in Sub-Involution, and in other conjected state of the pelvic organs. Its decided alterative action in absorbing plastic deposits is plainly characterized by its action, and its results are very satisfactory to me. I shall continue its use so long as I have such satisfactory results from it.

89 S. 15th St., Pittsburgh, Pa. W. J. RIGGS, M.D.

NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D., } Editors.

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ORIGINAL COMMUNICATIONS.

DOES ORGANIC DISEASE OF THE HEART PRECLUDE THE USE OF CHLOROFORM IN PARTURITION?

By T. Ridgway Barker, M.D., Demonstrator of Obstetrics in the Medico-Chirurgical College, Philadelphia; Out-Door Obstetrician to the Pennsylvania Dispensary.

[Read April 27, 1892.]

In entering upon the discussion of a subject of such paramount importance to mother, offspring and obstetrician, one cannot lay too much stress at the very outset upon the axiom that "A good remedy will fail of its effect if not properly administered." This fact must be kept uppermost in our mind if we would avoid fatal results, not due, however, to the employment of the agent, as some would make it appear, but to the lack of attention and care exercised in its

administration. That there is a radical difference between surgical and obstetrical anæsthesia (analgesia), goes without saying. If we consider for a moment the stages of anæsthesia, which differ only in the profoundness of the impression—first, sopor; second, stupor; and third, stertor—we cannot fail to notice that in analgesia one rarely has occasion to carry the effect beyond the first degree (sopor), while in the surgical variety we are obliged to advance beyond this and keep the patient in the second stage, or that of stupor, thus markedly increasing the gravity of the prognosis.

In this connection, let us devote a moment's consideration to the progressive effect of chloroform vapor upon the nerve-centers of the cerebro-spinal system, beginning, as it does, at the inferior extremity of the cord, sacro-lumbar, and gradually extending its paralyzing influence upward until it reaches and expends its force upon the medulla oblongata. These well-established clinical observations having been verified by physiological experiment, we are justified in putting them to practical use. What other agent, may be pertinently asked, can relieve—aye, abolish—pain so quickly and safely, yet leave reflex muscular contractility unimpaired, as chloroform? Ether and ethyl bromide have found favor with some practitioners, but neither can displace chloroform.

Fordyce Barker states in his writings: "I may say here that I have long regarded chloroform as the best and safest anæsthetic in obstetrics, and that since 1850 I have used no other."

The danger from the employment of chloroform in this department of medicine depends upon the carelessness with which it is administered than to any toxic effect inherent in it. The four cardinal points to be borne in mind when giving this anæsthetic are: (1) Plenty of pure atmospheric air; (2) liberation of a small amount of the vapor at a time; (3) attention to the respiration; and (4) frequent observations as to the force and frequency of the cardiac action. That the recorded cases of death have been due, in a great measure, to saturation of the residual air in the lungs to a fatal degree, can scarcely be doubted. A few deep, forced inspiratory efforts will quickly produce such a condition. Withdrawal of the agent under these circumstances cannot prevent the further entrance of the chloroform vapor into the circulation, for it already fills the air-cells. Nor will attempts at artificial respiration prove effectual, since but a small quantity of the residaul air can be forced

out of the lungs, while that which enters fails to sufficiently dilute the vapor owing to the tardiness of diffusion. Let us not suppose, however, that, because we administer to the parturient female small amounts of the drug continuously, therefore no risk is incurred, for experiments directed to solve this important question go to prove that even small doses, when continuously inhaled, tend to produce dangerous, and at times fatal, cardiac exhaustion. Far different is the result when given intermittently, as is the unalterable rule in obstetrics Should we seek authority for the statement that the dangers from the careful administration of chloroform in labor are too insignificant to warrant its refusal, we have only to turn to the *American System of Obstetrics* to find therein the following: "The danger when chloroform is used only to the extent of mitigating or abolishing pain in childbirth is practically *nil.*" Lusk, quoting from Bert's experiments, states "that chloroform might be intermittently administered for an indefinite period with safety." These remarks do not apply to its use in the third stage of labor, for, as is well known, after delivery of the child it is likely to occasion relaxation of the uterus, thus favoring post-partum hemorrhage.

Offering the above as a preface to my remarks on the judiciousness of employing chloroform when the parturient female suffers from organic cardiac disease, it now remains for us to consider the effect of parturition upon this enfeebled circulatory organ, thereby securing a scientific basis for our conclusions. In the first stage of labor we find the muscular contractions confined to the uterine muscular layers and directed toward overcoming the circular fibers of the cervix, while in the second or propulsive stage, not only does the uterus exert its power to the utmost, but also the abdominal and respiratory muscles are brought into action by the will of the parturient in her efforts to expel the fœtus. The diaphragm is forced down and its movements paralyzed by the female holding her breath.

The other respiratory muscles are likewise unable to act, and hence imperfect oxidization of the blood results. As a consequence, the cardiac movements are accelerated, greater resistance is met with in the pulmonary and aortic circulations. Moreover, a tendency exists to venous congestion, as evinced by the hue of her face and swollen veins.

Owing to the excruciating pain experienced when the head passes

through the cervix, the parturient is further tempted to make additional muscular efforts, which only augment the difficulties met with. Under normal conditions this strain is of such brevity that it cannot be considered of any importance, but when complicated by disease of the heart it is of far greater gravity. If the condition be one of fatty degeneration due to a previous peri- or myocarditis, resulting in faulty nutrition and enfeeblement of the heart's action, as evinced by weak impulse, venous stasis, confused and irregular sounds, anæmia alike of brain and other organs, with faintness and oppression on the slightest exertion, this interference with circulation and respiration may readily tax its powers too far, and so cause speedy death from paralysis. Here the conditions which pertain in surgical anæsthesia are absent. The indications present are to allay excessive muscular action and respiratory spasm which is threatening the over-stimulated heart.

To allow the female to continue such efforts is to permit her to commit suicide; to warn her to desist is useless when in such agony; while delay is likely to be fatal. How can we overcome this condition of nervous excitement? Can we accomplish it by the administration of chloroform? Yes; of the two evils, for we must acknowledge there is an element of risk in giving chloroform, we can only choose the lesser, and so promptly proceed by inhalation to relieve the accessory muscles of parturition of their strain. By the abolishment of pain we lessen the work required of the laboring heart, which, instead of beating at the rate of one hundred and forty or more a minute, may diminish in frequency to ninety or one hundred.

What has been said of fatty heart is equally applicable to conditions of hypertrophy and dilatation.

The equilibrium, if disturbed, is almost certain to result disastrously. That sense of fullness in chest and oppression due to bronchial congestion, if relief is not afforded becomes most distressing. The cyanosis from deficient aëration is greatly exaggerated, while the insufficient blood-supply to the brain causes syncope and may be succeeded by coma if the excessive reflex disturbance be not removed. Nor are the indications for the administration of chloroform materially different in the case of females in labor with valvular disease. Whether it be mitral in the young adult or aortic in the aged primapara the cardiac strain must be relieved if we

would save our patient. As is well known, all forms of valvular disease ultimately develop a condition of ischæmia on one side with corresponding low tension, while on the other side is stasis with high tension. While by compensation life may run on for years, yet, when the strain of parturition comes, it will soon be overthrown if precautions are not taken to prevent it.

Of what benefit will be our knowledge of the value of cardiac "physiological rest," as laid down by Fothergill, if we do not apply it under these conditions? We all appreciate the importance of securing "quietude of mind and body" when such pathological states exist. Then why not employ the quickest and safest means to obtain it by the inhalation of chloroform? If the danger is great from "active exercise—climbing mountains, running up stairs, lifting heavy bodies, and all kinds of exercise involving heart-strain"—how much greater, aye, how immeasurably so must it be when the parturient female forces, with the anguish of despair, every muscle to its utmost in her desire to deliver her child. From a study of chloroform anæsthesia in obstetric practice we have seen how it should be administered and how it acts. Surely none will deny that in its employment under these circumstances we act otherwise than for the best interest and safety of our patient. That one may not be charged with being a blind adherent to theory, one has only to turn for support and justification to the teachings of the late lamented Fordyce Barker, who states: "It seems to be almost accepted as an axiom, with both the profession and public, that the inhalation of chloroform is dangerous for any woman with disease of the heart. For more than thirty years I have been convinced that this opinion is quite erroneous, and I have so taught in my lectures and in former writings"

He goes on further to say: "I have seen several cases, complicated by dangerous heart lesions, which terminated favorably, as I think, solely from the use of chloroform."

Snow, likewise, is of this opinion: "In all forms of valvular disease," he says, "chloroform, when carefully administered, causes less disturbance of the heart and circulation than does severe pain." To quote from Championnière: "If," he says, "I recognized an organic affection of the heart, without pulmonary complications, I should rather give the woman chloroform than to let her suffer." Were further proof necessary as to the propriety of employing

chloroform anæsthesia, one might include among this group of clinical observers, Vergely, who expresses himself thus: "Diseases of the heart are not a contra-indication to the use of anæsthesia." Macdonald states: "In almost all cases of heart disease with labor chloroform has been given, and apparently with benefit, during delivery. If carefully administered, I think it cannot but be useful in all cases." Since such eminent authorities advocate its employment can we justify ourselves in refusing our patients the benefit and comfort this agent affords? What is the danger from chloroform compared to the state of exhaustion and collapse into which the parturient female will inevitably fall? If this heart is forced to the verge of paralysis from overwork and excitement, why shall we not use the means at our command to lessen that strain? Let us have a reason for the faith that is in us, and not hesitate to fearlessly employ extreme measures to overcome extreme dangers.

Chloroform by inhalation can and will, if properly administered, save the lives of parturient females, suffering from organic disease, when death seems imminent from over-stimulation of its ganglia through reflex nervous action. Organic heart-disease, then, does not preclude the use of chloroform in labor, but rather is a condition calling for its careful administration.

QUININE has recently been artificially reproduced by a species of transformation of cuprein, which is the alkaloid obtained from the bark of the remijia pedunculata, or cuprea bark of Central South America. It is mentioned here for no other purpose than that of general interest, for the discovery comes in one way some years too late, as at present the price of quinine is so comparatively reasonable that no incentive is offered to go out of one's way to produce the article other than from the cinchona barks. This production artificially, however, is another striking illustration of the marvelous results the synthetically inclined chemists of our day attain to. These chemists thought this construction out somewhat as follows: They knew cuprein formed definite crystalline salts; they therefore produced the sodium salt. Then the possibility of substituting the sodium in this salt by a methyl group gave them reason to believe that the resulting compound would be quinine. This supposition proved to be correct, and resulted in a triumph for their endeavors.—*An Ephemeris of Materia Medica, etc.*

"OUR MISTAKES."

Some years ago the late Mr. John Hope and I saw a patient suffering from intolerable pain in the testes. Both testicles were enlarged, the left as large as a goose's egg, the right slightly smaller. As the enlargement and sufferings increased, especially on the left side, we decided to remove that testicle. On doing so we found a healthy testicle encased in dense concentric layers of suet-like fat about an inch thick. The relief obtained made the patient urgent to have the right testicle removed too, which was done with complete relief. Some months afterwards this man came to me again in a deplorable condition. His body was emaciated, but the abdomen had become enormously enlarged and extremely painful. The abdominal swelling was uniform and dough-like on palpation and absolutely dull on percussion, without any evidence of fluctuation. His chief symptom was a mucous diarrhœa over which remedies had but slight control. He died of exhaustion. On making a post-mortem examination, we found the enlargement was entirely due to the presence of hundreds of fatty tumors scattered throughout the folds of the peritoneum. The mesentery was a mass of them. They varied from the size of a pea to that of an orange, and each was composed of concentric layers of suet-like fat similar to that found around the testicles. The smallest were concentric as distinctly as the largest. The most remarkable developments were in the appendices epiploicæ, each of which extended into the abdomen like a large bunch of grapes studded with fatty nodules. We might, if we had had a similar experience, have divined from the testicular encasements the real cause of the abdominal enlargement; but, lacking this, I think it was impossible to make a sure diagnosis. But I must draw this part of my subject to a close, or I should like to have alluded to the difficulties which surround the medical man who is called to see a patient in the initial stage of any of the acute febrile diseases, especially of infectious diseases. If he speaks of his suspicion too soon he may find he has given needless alarm; if he hesitates too long he may be blamed for not speaking soon enough. A wary outlook, an expectant state of mind, and a knowledge of human nature, are all needed to save him from a false position. Lastly, the mistakes which occur in the treatment of disease may be divided into those

arising from a false diagnosis and those in which the wrong remedy is used where the diagnosis is correct. I need not say that, for the most part, a false diagnosis is the cause of most of our mistakes, but this has already been dealt with. With regard to the misapplication of the treatment when the diagnosis is correct, I may say this is often owing to the want of a true appreciation of the temperament and constitution of the patient, whereby we are led to give what is good enough for the disease, but bad for the patient. Let us ever remember, therefore, that we are treating patients as well as diseases, and what may, rigidly speaking, be the right thing for the disease is often the wrong thing for the patient. Take the case of tonics, such as iron and quinine. I know of nothing which has destroyed the confidence of patients, both in medical men and medicines, more frequently than the administration of these remedies to debilitated, anæmic and phthisical patients when they were quite unable to bear them. How often do we see a patient in the early stage of phthisis suffering from the miseries of dyspepsia added to those of his disease. And yet we find such a patient is being treated by cod-liver oil, or iron and quinine phosphates, which only add still further to his misery. Or, again, take the case of anæmia in which the fault lies in a weak and irritable gastric membrane. Nine out of ten of such patients become considerably worse when treated by ferruginous tonics. Or, again, take the case of a patient recovering from an attack of gastric catarrh: to select the exact moment when that membrane will be able to bear a tonic, and decide what tonic to give it, is one of our most difficult problems. In early phthisis, in anæmia, in the exhaustion of gastric catarrh, I rarely venture on any so-called tonic medicine, and prefer to give aids to digestion and sedative correctives until I am well assured the stomach will tolerate such remedies as iron, quinine, or cod-liver oil. I cannot help thinking these misapplications of the right remedy for the disease in unsuitable cases is the secret source of that skeptical attitude which many able men have assumed towards the beneficial action of medicines. In early life they expected too much, and blamed the medicine, when really it was its application which was at fault, and so they have lost faith. I, for my part, have an undying faith in the virtue of medicines, and I hope to live to see the day when mankind at large will accord to rational scientific medication the place it undoubtedly deserves to hold in its esteem.—*Dr Wm. Murray in the London Lancet.*

MINUTES

—OF THE—

THIRTY-NINTH ANNUAL SESSION

——OF THE——

Medical Society of North Carolina.

WILMINGTON, N. C., May 17, 1892.

FIRST DAY—Morning Session.

The Society was called to order at 11 o'clock by Dr. Thomas F. Wood, Chairman of the Committee of Arrangements, Dr. W. T. Cheatham, M.D., of Henderson, being in the Chair, and Dr. Julian M. Baker, of Tarboro, acting as Secretary in the absence of Dr. J. M. Hays.

The Convention was opened with prayer by Rev. Thomas H. Pritchard, D.D., pastor of the First Baptist church of Wilmington.

Dr. Geo. Gillett Thomas, of the local profession, then delivered the following

ADDRESS OF WELCOME.

Gentlemen of the Medical Society of North Carolina:—I am the delegated gatekeeper for the medical profession of Wilmington on this occasion, and I stand at the portals to declare to you that your presence in our midst brings us much pleasure. We are of your number, and it fittingly becomes us to tell the good people of this ancient and honorable borough the great worth of the organization your zeal has created.

There has never been a time in the history of the Society when the busy and hard-working physicians constituting its body corporate have not been earnestly strong in the promotion of preventive

as welll as curative medicine, and seeking to enhance the welfare of the many communities committed to their charge, and the growth and character of your membership, is ample testimony of the esteem in which this Association is held by the profession in North Carolina.

Recognizing your merits, and partaking of the general sentiment that you are among the chief guardians of our people and an acknowledged aid to the executive officers of the State, we claim that you deserve equal rank with the other learned professions; that you do such duties of mercy and loving-kindness as entitle you to a generous consideration as high as that accorded the learned jurist or the wise legislator. No community, then, can fail to realize that your advent into their midst is an event of note and one calculated to redound to the prosperity of those who are your hosts.

From all time, since the settlement of this section, there has been an unwritten law that the stranger and wayfarer seeking a resting place here, if he possessed the pass-word that would make known his rights, should be courteously received in the borough. There are no people on the green earth whose generous souls are more alive to the rights of hospitality than the inhabitants of Wilmington. These are the customs handed down from the fathers and their descendants and those not altogether to the manner born, but thoroughly engrafted upon the ancient stock, have long gladly lent themselves to all these gentle courtesies. For they have made life among these hills of sand and savannahs abloom with flowers; like the one, white and pure; and like the other, full of beauty and redolent with pleasant memories.

There is a legend that no stranger to whom was given to drink of the water that flows from an old spring near by could ever forget the place, or divest himself of a lingering desire to return again to its people. The story is full of beauty. The spring in the growth of the town has been abandoned, but the essence of the story still lives in the genial warmth of people's hearts, and in the open doors of Wilmington's home to all who deserve to enter and be made worthy guests at the fireside. There are near at hand sources of recreation which we shall offer you leading to the enlivening breezes of the sea-coast, and landing you at the very edge of the great ocean.

For the timid, if such there be in this assembly, there is the still water and soft air of Wrightsville—great refrigerators in these hot days. For the more venturesome, the surf forever sings a song of invitation, and in its roll those of you who shall dare its waves will find exhilaration and delight. The cold winds of the winter are forever tempered by our genial sun, and in tone the long heats of the summer's day are made tolerable by the cool, sweet breezes that sweep in from the sea. To us this is the dear spot of the earth, and we offer its use to you during your stay, assured by our faith in it that it will regale you.

Gentlemen of the Medical Society of the State of North Carolina, in the name of the Wilmington Medical Society, and for the people of the town, I declaee the gates to our home and hospitalhty not ajar, but wide open. To the inner courts I bid you welcome.

RESPONSE.

Dr. R. L. Payne, Jr., of Lexington, responded in the following words:

It has been made my pleasant duty, sir, to respond to the generous words in which you have extended to us the welcome and hospitality of your city, and yet, moved as I am by a host of varied and pleasing emotions, I find it impossible to choose suitable words in which to give expression to all the gratification which the North Carolina Medical Society can but feel because of such an open-handed, warm-hearted reception. To many of us, sir, this occasion is but the renewing of old pleasures, for once in each decade since its organization our Society has convened within your gates, and each time your citizens have striven to surpass all others in their manifestations of sympathy with the aims and objects of our Association and in their kindly care for our welfare and our happiness.

Those of us who for the first time are come among you have received the traditions of the fathers, and are filled with glad anticipations of pleasure and profit, already reaching a happy fruition in the joyful reunion of friend with friend and in the inspiration to higher and nobler achievement which spring up unbidden in every breast as we listened to your warm-hearted greeting and earnest God-speed. And yet, sir, I would not have you think there is anything of surprise mingling with our deep sense of pleasure,

for since the old colonial time Wilmington has been noted in history and in legend for her devotion to hospitality and many an olden tale of lavish entertainment is told of those who first laid the corner-stone of this grandest city of our grand old State. Indeed, sir, apart from mere questions of pleasure, we feel that we enjoy a distinguished honor in being your guests, for the people of New Hanover have always been leaders in all that is generous, noble and true; her sons have always led the van with those who resisted oppression in every form, and in the days when British tyranny ground down our people and would have rivetted her fetters upon us, none showed firmer opposition than this good old county of New Hanover. Indeed, in every emergency which has arisen in our country's history the people of Wilmington have always been in the front, ready to do and to die, to devote fortune and life to the cause of right, and so her sons have made themselves an imperishable record for all that we most admire in human endeavor and achievement.

That we delight, sir, to honor the memory of good John Ashe, of Cornelius Harnett, of William Hooper, of Edward Dudley, and of the many other illustrious sons of this good old city who have helped to shape the destinies of our State and our country, and we will not quickly forget how, in the dark days of the war between the States, when our people, moved by a deep sense of wrong, made war for freedom and for right; when our beautiful Sonthland was clouded with the smoke of battle and her almost every hill and vale bathed in the crimson tide of life-blood poured out in her defense by her devoted sons, then Wilmington, true to her record, not only sent forth the pride and glory of her manhood to die in glorious strife, but once more, as in the old days of the Revolution, she is called upon to give aid in the councils of the new nation and her distinguished son, George Davis, brought lasting credit to the Old North State as Attorney General of the Confederacy.

But, sir, amid all your glorious record we point with peculiar pride to the names of three of Wilmington's physicians and declare that, for true heroism, for unflinching courage and steadfast devotion to duty, they deserve place among the heroes of the world. In the days when the dread scourge, yellow fever, came as a fell destroyer in your midst; when your loved ones were dying by the score; when desolation sat at the hearthstone and the wail of the mother-

less babe found a refrain in the grief-stricken cry of the mother bereft of the love of her first-born, or the groan of agony wrung from the lips of the poor old father as he saw the son, the pride and joy of his life, fall a victim to the terrible, insidious foe, then, the physicians of Wilmington, true to the demands of their high calling, hesitated not for a moment, and while others were flying in search of safety, they cast their lives into the breach, and during all the dark days of the pestilence they stood undaunted at their posts fighting for the lives of your people. Men of Wilmington, you can find no nobler picture of self-abnegation and unflinching courage in all the annals of the ages. In the pride and pomp of wars; under the excitement of martial music; in the heat of battle, with soul athirst for glory, men charge undaunted upon the very cannon's mouth; rush eagerly into the very jaws of death, and, dying, win undying fame. This is a grand and glorious sight, but after all does this compare with the courage of him who fights "with the pestilence which walketh in darkness"? Go, watch the weary physician making his ceaseless round among the sick in time of the dread epidemic! All about him are flying from the terrible enemy; his martial music is the sad, sad groans of agony coming from the lips of the dead and dying; his only inspiration the love he bears his fellow-man; almost certain end to die "unwept, unhonored and unsung," amid the great mass of sufferers, and yet day after day he stands at his post fighting for humanity, with no thought of emolument, no hope of fame, with only his watch-word and duty as his battle cry.

I tell you, men of Wilmington, amid all your galaxy of great names, there are no brighter stars than our own revered Anderson, our own honored Dickson, our own loved and honored Thomas. Go, teach your children to revere their memories; go, deck the brow of the living and the graves of the dead heroes with laurel and with bay; go, write their names high in your annals of fame, and beneath the scroll inscribe in living letters, "These gave life and health for the lives of our city. But, sir, I beg your pardon, if, in the contemplation of those grand old heroes, whose life-work in your midst has left such a halo of glory about your city, I should have for the time being seemed forgetful of the happy duty of the hour. In the name of the North Carolina Medical Society let me once more express our most grateful thanks to you for the welcome

you have given us; for the encouragement vouchsafed by your interest in our work, and, in the name of my colleagues, accept our most cordial invitation to grace our sessions with your presence, when you will add strength to our deliberations by expressions of your wisdom.

The President then called the Society to order for business.

On motion of Dr. W. W. Lane, Dr. F. S. Martindale, of Staten Island, was extended the courtesies of the Society.

Drs. J. E. Michael, J. W. Chambers and E. Geer presented the proper credentials and were admitted to the sessions of the Society as Delegates from the Medical and Chirurgical Faculty of the State of Maryland.

Dr. Wood announced for the Committee of Arrangements that a daily programme would be printed, and that the Society was extended all the privileges of the building, including the gymnasium and the baths. He wanted the members to feel perfectly at home.

A communication was read from the officers of the Cape Fear Club extending the privileges of their rooms to the Society; also one from the Wilmington Library Association to the same effect.

Dr. W. W. Lane, Surgeon of the Wilmington City Hospital, invited the members to visit his Institution.

On motion of Dr. Bahnson, the thanks of the Society were extended to the officers of the different institutions and to Dr. Lane for their kind invitations.

The President then read the

PRESIDENT'S ADDRESS.

Gentlemen of the Medical Society of the State of North Carolina:—The distinguished honor conferred upon me at the Thirty-eighth Annual session of this Society, brings with it as your presiding officer the agreeable duty of extending to you my heartfelt and cordial greeting to this, our Thirty-ninth Annual reunion. The presidency of the Medical Society of the State of North Carolina, ever an honor upon whomsoever conferred, becomes especially so when spontaneously bestowed by the unanimous voice of the largest membership of the Society ever assembled in one meeting. To be thus honored arouses within me feelings of gratitude which a tongue inspired with silvery chimes of human thought could have no power to express.

Permitted once more to assemble in this highly favored commercial center, with its genial and salubrious climate, hospitable homes and courtly people, I feel assured all come with one common purpose, namely, the advancement of Science, the upholding of the honor and dignity of our noble Art, and the promotion of the good of our fellow man. In making a retrospective glance over the long list of addresses by my distinguished predecessors, I find almost every subject of medical interest has been discussed either directly or indirectly, from the times of remote antiquity down to the duties and functions of the present Examining Boards of the different States.

This last mentioned subject is one of vast interest to the medical profession and of far more importance to the people of the States, inasmuch as it was especially for their protection against incompetent and unworthy members of the profession, that the laws regulating the practice of medicine were passed. So far as North Carolina is concerned we have nothing but praise and congratulations to offer for the manner in which the law has been observed. The applicants for license, with few exceptions, who have been so unfortunate as not to be fully equipped to meet the requirements of the law before entering upon the grave responsibilities incumbent upon a practitioner of the healing art, have submitted with a grace worthy of the plaudits and emulation of all good and law-abiding citizens. It only remains for the loyal, prudent and conservative members of the profession, aided by an enlightened, intelligent and humane citizenship, unbiased by extraneous or fortuitous circumstances, to see to it that the law be enforced in the fullness of its letter and spirit, ever holding the scales of justice evenly poised that its good name be in nowise stigmatized, and we confidently predict that the time is not far distant when all opposition will have ceased, and the high standard of medical education in North Carolina will be the pride and boast of an enlightened and appreciative citizenship.

Inasmuch as a large number of young men of late years have been admitted to the practice of medicine in this State, and so many have become members of this Society, I shall direct my remarks in a line that perhaps may prove profitable to some of them at least, and should any of the older members fall within the range of my reflections, I hope they too will profit thereby.

The ultimate aim of all medical research is the treatment of disease. It is eminently proper that a medical man be generally well informed; but what is to be more devoutly wished for is that he shall be a skillful practitioner. It is quite possible to be the one without being the other. The combination is what we hope to see commonly accomplished. The tendency of recent teachings has been rather to produce the first, leaving the second quality to develope itself or remain in a condition of imperfect evolution as might fall out. We constantly hear it asserted that the highly educated medical men of the present generation are not more successful in practice than their less accomplished, but more practical, predecessors. Even members of the profession are to be found who gravely assert that the man under whose treatment they would place themselves if seriously ill is the old-fashioned general practitioner.

This, gentlemen, is a very serious reproach to all our recent advances in scientific medicine; to our modern instruments of precision in diagnosis; and also to our progress in rational therapeutics, with the vast list of valuable remedies added to our armamentarium in late years. In order to understand how progress in one direction may exist without corresponding advances in other directions, indeed, with a certain amount of retrograding in some respects, we must clearly distinguish between medicine as an art and medicine as a science.

We now have some precise notions about the rational consequences of valvular disease of the heart, and see why one set of consequences results from a defect in one valve, and why a totally different series of results follows imperfection in another valve; we have also made rapid progress in distinguishing the locality of disease in the brain from the various disturbances produced in it, according to the functions of the part affected; we have learned the important lesson that much of the disease of advanced life is due to a want of that compensatory equilibrium so necessary to a proper elimination of nitrogenized waste.

The relation of mental conditions to bodily derangements has dawned upon us in the ordinary diseases of the sane. Physiological inquiries in many instances have successfully pointed out to us the right direction of our therapeutic measures and lighted up areas that could never be successfully illumined by empiricism.

En passant, I will call your attention to some familiar illustrations of this. For instance, the treatment of angina pectoris by nitrate of amyl was the logical sequence of certain physiological inquiries as to the action of this drug, together with some very exact observations as to the actual condition of the circulation during the attack. The synthesis thus erected by Brunton and successfully applied in the wards of the Royal Infirmary of Edinburg is an excellent and most praiseworthy illustration of the power of well-conducted physiological inquiry in practical medicine.

Leibreich by experiment gave us chloral hydrate, an hypnotic of much value, to say nothing of analgesics, antipyretics and other valuable remedies that have been added by others following up the same line of inquiry and physical investigation. The stethoscope, the thermometer, the laryngoscope, the sphygmograph, the urinometer and cognate diagnostic aids have illuminated the field of diagnosis and enabled us to recognize diseased conditions with a certainty and precision hitherto unknown to the most skilled diagnostician.

The microscope has rendered most valuable service to medicine as an art as well as a science. In dermatology it has cleared up a whole class of diseases heretofore shrouded in mystery; in the recognition of many internal affections involved in apparently hopeless involution, it is simply invaluable as a diagnostic aid. In that division known as the science of medicine we believe we can say with pride and confidence that the magnificent advance is permanent, and not to be swept away by subtle theories or fanciful chimeras. In the art of medicine I apprehend that we cannot boast of such stable and magnificent advance. It is very true that our instruments of precision have become far more numerous; we have insensibly come to regard the information thus furnished as of primary importance; until the information derived from a careful collection of rational symptoms, from a cautious consideration of the general condition, has been awarded a subordinate position. In fact, I think we attach an exaggerated importance to one series of facts and place a subordinate estimate on the value of others; my observation is that at present physical signs predominate in the mind of the practitioner over the current rational symptoms to the detriment of the patient, and it may be to the discredit of the profession.

The general public cannot be expected to estimate us by any other measure than that of our usefulness. It is well for a patient to feel that his medical man is a gentleman and a scholar; that he is carefully trained in physical examination, and capable of constructing a skillful diagnosis; who has spent much of his time at the post-graduate or polyclinic, and perhaps added the observation of foreign schools to his home-acquired attainments; but, gentlemen, the essential, thing, after all, is confidence in his power to aid him when stricken and prostrated by disease or accident. Yes, the latter is our actual business and occupation in life; and it is here that success is most to be desired. Let us briefly review some of our actual work that will bear successfully the test of severest criticism You will bear with me for selecting matter for illustration which may seem commonplace because of its long familiarity; it is here, however, that most brilliant results have been obtained; we perform the longest and most excruciating operations without the patient feeling one pang of suffering; we give relief by hypodemic injections of morphia speedily, efficiently, and with less of those undesirable after-effects, than we could before this invention, to say nothing of its value otherwise; we enable an injured heart to develope compensatory growth, and so, in many cases, preserve for years valuable lives, which only a few years ago must have soon been lost to us. By improved methods in facilitating nutrition we now rear myriads of children who but a generation ago would have swelled enormously the death-rate of those who die under four years of age. By a carefully selected diet we prolong for years the existence of the diabetic patient. The widespread use of antiseptics and disinfectants has worked a much needed reform in the relation to the arrest of the spread of disease, and in rendering our refuse less harmful. Indeed, there is much to render the progress made in the last forty years memorable in the annals of medicine as an art, as well as a science.

On the minds of some, both in the profession and out of it, there seems to be an established fear that there is something dangerous and unsafe in too much understanding of the nature of things, especially the nature of disease. To such it seems much better and safer to rest contented; that it is the best thing to do certain things under certain circumstances, without being too inquisitive or curi-

ous as to the how and why; in fact, they rather avoid being able to give a reason for the faith that is in them.

Those who search into the nature of things they stigmatize as impractical. If research has yielded positive information, and a law has been established, they call its elucidator a theorist. A theory, no matter how well founded, has to them something dangerous about it, and indicates unsoundness in its enunciator. Others, however, are ever anxious not only to determine the *causa causans* of all diseases, and even accidental troubles, but also the contributory causes, laboring under the belief that, if such knowledge be obtained, proper treatment will of necessity be the logical sequence. Many people, speaking of politics as the cause of breaking down, confound cause and effect, as also naming religion as a cause of disease, when, as a matter of fact, it is not the cause that constitutes the disease; the malady is constituted by the perversion that results from the cause. One may be exposed to cold and damp which may cause bronchitis, yet in this instance we would not be expected to treat the cause, but the effect; and a fall may cause a fracture of a leg or an arm, in which case the surgeon would treat the fracture and not the fall; causes produce troubles in organs or in functions, but the trouble alone constitutes the malady. These principles, I hold, are general and applicable to all pathology. Such leanings, gentlemen, have done much to retard the progress of medicine, and in many instances have decidedly crippled its usefulness.

The carefully acquired knowledge of one practitioner, however useful to himself and his patients, gives little or no addition to the general stock of information, because it remains individual knowledge derived from experience, which dies with its possessor because he cannot formulate it—cannot so arrange it as to bring it in the sphere of the cognizance of others. He can treat one complex case admirably from his previous experience of like cases, but he cannot enable another to treat such or similar cases. The knowledge exists, but not in a communicable form. If such experience could only be rendered available to others, a great step would be secured. Much of the advance of knowledge lies in the capacity of one generation to benefit by the experience of its predecessor, in the power to appropriate the information gathered by those who have gone before us, knowledge which we in our time should have

elaborated to those who shall come after us. Medicine is no exception to this rule—a man should not only learn for himself, but he should gather and garner for his successors. My remarks, as I have said before, are intended principally for the younger members of the profession. They especially have been pursuing a scientific education without anything like a corresponding acquaintance with actual practice, and pass into the ranks of the profession, and are brought face to face with the care and responsibility of grave and complex cases, without that aid and supervision from teachers and seniors to which they have hitherto been accustomed. It is a serious matter, both for the patient and doctor, to be thus abruptly introduced into the practice of medicine, with all its responsibilities, difficulties and anxieties. After having prosecuted successfully your collegiate course and received the degree of Doctor of Medicine, and then passed the fiery ordeal of the State Examining Board and secured its approbation, then you find that practice differs essentially from the examination-table. An examiner may temper the wind to the shorn lamb, and remember that a license or diploma only guarantees the possession of a certain minimum of knowledge, while in practice the most complicated cases are presented. Further, too, there is this difference: in the hospital the patient is simply a case of typhoid fever or some other disease; while in actual practice the patient is to a certain extent a patron, and the management of the case may exercise a distinct and powerful influence over the professional reputation and prospects of his medical attendant. Such a consideration alone is often sufficient to produce a certain disturbance of the intellectual equilibrium, and to interfere with that serenity so desirable for calm investigation and decision; induce, in fact, perturbation of a nature militating against perfect self-possession. So it is apparent that a patient is not merely a subject of interest as the victim of some morbid process, nor even as furnishing an opportunity for individual advancement merely, but he is an elaborate and interesting organism possessing certain definite qualities. In fact, gentlemen, he is a man. He is a being who possesses the attributes of humanity collectively, together with some variations which form individual peculiarities, and as such he should command the highest consideration, humane and scientific, from his medical advisor. However the medical man of the present day entering upon the grave duties

and responsibilities of his profession, can justly claim a higher and a better qualification for the work before him than those who have preceded him. The advanced state of medical science, the improved methods of teaching, and the high standard of attainment necessary before being admitted to practice, give him an advantage for usefulness and high distinction hitherto unknown to the medical profession of the State While other States have followed in the wake of North Carolina in establishing a higher grade of qualification before admission to the right, honor and responsibility pertaining to the practice of our noble art, we can say with pride that we are still in the lead with only one other, our sister and neighbor Virginia, close by our side. While we have so much for congratulation because of the elevated and scientific qualifications brought about by the untiring vigilance of the cultured and enlightened membership of this Society; what shall we say of the observance of ethical properties by the profession at large? This is a subject worthy of most serious consideration. There are many members of the profession, I am grieved to say, who fail to connect themselves with any medical society, nor will they enter into any mutual agreement of a professional character, lest they be constrained to observe those properties incident to honorable professional intercourse. These people seem to be possessed of a mental astigmatism and a moral strabismus, and it is to their professional idiosyncrasies and obliquities that I propose briefly to direct your attention. Probably there is no truer axiom in our language than "self-preservation is the first law of nature." Probably there has never been a nation whose civilization advanced to the construction of even a rude form of philosophic thought among its people, but has had current in its society an adage embodying, under some form, the same idea. One of the most powerful and beautiful arguments of antiquity endeavoring to prove the existence of a supreme intelligence in the creation of man, which has come down to us, is in one of those Socratic dialogues in which the different members of the body are considered with reference to their respective functions, each being shown to be so admirably adapted to the preservation of the integrity of the entire being. This primal law is so plainly delineated on the face of nature that it would be wonderful had it not been so commonly seen. But while we all admit this prime fact, the whole world does

not so clearly see its corallaries There are a thousand streams of human action, meandering through the shadowy coverts of the social life of the world, which, when traced up to their fountain, are seen to spring from this principle The great struggle for life is not that of the present living world alone, but in the ages of the past, as revealed to us through geological discoveries, traces of a universal war for existence are as plainly marked as in the living world of to-day. This instinct in man as the highest reasoning animal, exhibits itself under a somewhat different phase to the form of it developed in the brutes; for, after exhausting all natural aids, the principle of preservation causes him to appeal to the supernatural for assistance. That carter of classical fable, who, when his horse failed him, appealed to Hercules for help, is but a type of the actual man of the world of all ages, past and present. To this principle we owe the superstition of our nature, a superstition which, at one time or another, has infused itself into all three of the learned professions, and more particularly into our own, in which to-day perhaps a close scrutiny would show a few lingering traces. Until a few centuries ago the "Black Arts" were intimately interwoven into the fabric of medical practice so that it would have been perfectly in accordance with the spirit of truth to have paraphrased the inscription common over the door-ways of the Pythagorean Schools of Philosophy in ancient Greece, which read: "Let no one ignorant of Geometry enter here," and have inscribed over the arch-way opening into the temple of medicine: Let no one ignorant of Astrology enter here.

The doctor of the period commenced his prescription with an invocation to Jupiter, and the "split-foot ♃" with which we of to-day commence ours is but an astronomical sign of that planet somewhat distorted in its journey down to us through ages, as anyone can ascertain for himself who will take the trouble of consulting a modern quack almanac for the original sign. Then the apothecary gathered his simples according to rule, waning and full-ing moon; then the physician consulted the twelve signs of the Zodiac, and prescribed and prognosticated as Taurus, Gemini or Cancer was in the ascendant; it was then, after having failed to cure by the use of such disgusting farragoes as would require some ingenuity in a physician of the present day to conceive, that the doctor would resort to prayers, charms and verses. If any of you

will consult the "Rosa Anglica of John of Galdesden," an authority of repute in the fourteenth century, you will find him full of these charming verses. But if we of modern times, living in an age a characteristic of which is that it is essentially material, can congratulate ourselves that necromancy is no longer a part of regular medicine, that the doctor of to-day is not expected to be a magician, that the familiarity with the "Black Arts" is not an integral part of the knowledge of scientific medicine, yet we in humility contemplate the fact that we have still to-day existing in our profession as "Black Arts" as any of a past age. It is true that they are not considered to belong to medicine proper; it is true that their practice is not considered characteristic of the true representation of modern medical science, and it is also true that the practitioners of said arts are held in contempt and loathing by all true disciples of the heaven-born calling; but it is nevertheless as true that at this day and hour there are not a few who manage to have themselves classed with the true disciples, who in secret league with the spirits of darkness cultivate the modern "Black Arts" under cover with the greatest assiduity and skill. And, gentlemen, it is true that with such members of this Society whom I now address are in daily intercourse and are compelled to meet as equals and honorable rivals nominally certain devotees whose astute skill, whose dexterous practice and successful manipulations in the line indicated render them worthy of high position in this dark department of medicine. The over crowded state of the profession, the want of moral training to resist the temptations which beset all of us in our professional rivalry, in our efforts at self-preservation, in our struggle for professional existence in fulfillment of the "first law of nature," is a predominant cause favoring a luxuriant crop of tares. In brief, the spirit of materialism which seems to rule the age has destroyed reliance on divinations, incantations and charms, but the same gross spirit has inspired a reliance on certain ingenious devices for gaining notoriety, and certain modes of acquiring the patronage of the world, which, while of an entirely different character, are infinitely more repulsive. Dr. John D. Jackson, of Kentucky, some twenty or more years ago, published a monograph reflecting severely on the then violators of the code of ethics. This monograph contains a letter ostensibly addressed by Dr. Solomon Michiavelli Sharp to Dr. John Charlatan Green, his

nephew. I will read for your edification some portions of this amusing, but bitter and painfully truthful, description of what he considered to be the most reliable means of obtaining practice:

"*My Dear John:*—Your epistle of recent date has been lying before me until now unanswered. You tell that to the time writing you have been unfortunate in the profession which you have chosen; the world, you say, does not seem to recognize your merits, and that you are neglected, while you see around you men whom you deem far your inferiors not only patronized, but in some instances taken up and much ado made over them; about which you seem much discouraged, and ask for advice as to the means to pursue by which most certainly to secure your business, appealing to me as a successful doctor, retired after forty years practice, to give you the benefit of my experienced observations. Now, my dear John, I must say in candor your failure is attributable to the defects in your professional ability, though as my sister's son and a chip of the family block, I do not doubt that time is all that is necessary to see you, of your own innate instinctive development, after awhile "flourish like a green bay," if not like a "cedar of Lebanon." I could predict this with certainty were it not that the blood of the Sharps has been crossed by the Greenes, which may hinder the development of your sharpness, yet I do not think it will prevent the final, th ugh it may be a little slow, maturation of the peculiar characteristics of the maternal side of your house. I have never yet known a true Sharp fail from lack of shrewdness or from neglecting to make the most of an opportunity, or to be hindered by modesty from boldly pushing his way on every occasion offering. The Greenes, I know, have always been more slow to appreciate their own merits, and I suspect you inherit something of their nature, but I have little doubt but that, after awhile, the opposite traits which you by right inherit will finally assert themselves. As I have before intimated, I attribute your failure to a want of professional ability, owing to the deficiency of your education."

Now, on this point I hold some views which are entirely my own, and they are these: The Shorter Catechism of our Church declares that "the chief end of man is to glorify God." If I were to make a medical catechism I would write first that the chief end of the doctor is to get practice. Machiavelli declares to his nephew what seems to be the guiding principle of a host of physicians, "that

the chief end of the doctor is to get practice;" and he also says the chief way to accomplish this is by "honeyfuglin" the public. Machiavelli thus advises, and his advice is good, for many of you, I apprehend, see daily what its adoption accomplishes: "Push into practice at all hazards." "Recollect *audaces fortuna juvat.*" "Study will keep you back in practice; skim the surface; be qualified with the formula prescribed; form is the chance, whether in law or physic; this is the business, the Alpha and Omega." When one complains of feeling unwell in your presence, be quick to prescribe, without charge, for it will bring its return." "Luck's all." "You are paid, go which way you will." "Make all the noise and bustle you can to make the town ring of you, that everyone may know there is such a physician; it signifies but little how this be done, so it is done." "Frequently put yourself in public print, and if you have an important patient under treatment, make daily reports through the press." "Stand on the streets and tell about your difficult cases, real or imaginary; this is very effectual." "Bend or truckle to the whims of your patient, and fawn upon and sooth man, woman and child, for this is a winning card." "Be, if possible, introduced into a hospital, or, if this cannot be accomplished, visit some noted medical centre, and on your return proclaim to all with whom you meet the wonderful knowledge you have obtained, and your business is done for, be your success what it will." "If your wife should mind business in her way, it will increase yours." "Set up an equipage and buy books, one or two French and German would be well; be cautious about who can read them, lest you expose yourself." "Fashionable dress and gesture and manner of feeling the pulse are half the business. "Write a book of some sort on physic or religion; write so that no man can make anything of it." "I especially advise that you get acquainted and to cheerfully keep company with all old women, midwives, nurses and apothecaries, as you must look to business; the old ladies are the most subject to ailings, and will acquaint you with the same; consequently you are to make the most of it; and never neglect or make light of the least complaint; thus you will gain the reputation of being both careful and skillful; otherwise your care and skill may be suspected as well as your affections." "Ride or drive a peculiar horse, a calico horse or piebald mare, or a buggy with an excessive deal of red or green paint upon it." "Cultivate style

and manner; drive over children and have your name in the papers, or, if desperate, lose a dog and then advertise your name in large capitals." When you go to church be called out frequently, come in late, leave before the services are concluded, or stand in the door-way, shake hands with all, and bow to as many as possible—it is very profitable." "Bob your head to every one you meet on the streets, shake hands, if possible, and hold the hand you shake a long time—it pays well." "If anyone ceases to employ you, go to him for an explanation, and let him know that your feelings are hurt." "It is time to stop; I have given the outline, sketched the field, and it remains for you to fill in the details; the list cannot be given entire; it is very valuable." "These devices invariably bring practice and their adoption costs little—only a forfeiture of character and respect!"

Dr. Jackson has omitted a few hints that are very valuable, viz: to drive persistently about the streets, especially on Sunday, and when the streets are crowded; call at private houses, ring the bell, and find after you enter you have mistaken the house; leave your slate at several drug stores, and employ some one to write calls upon them; subscribe to all charities, whether you pay anything or not; give small presents to all the children in the community, and at Christmas time give books and other presents largely; if a new preacher comes to town be quick to call on him and offer your services, and especially declare your cheerfulness to do the charity practice of his congregation—this pays well; if you are a member of the Church, see to it that the "church racket" is played for all it is worth; never let an opportunity pass to magnify your services; gravely inform your patients that it was lucky they sent for you just when they did, for it was by your timely arrival and puissant intervention that a mighty fever was prevented, "that the bellyache would soon have run into a typhlo-enteritis with intussusception, or the child's stumped toe would soon have become the worst kind of a case of sphacelated mortification"; lose no opportunity for displaying your instruments; if you have a finger or a toe to amputate, take with you your amputating pocket and gynecological cases, and a gallon of antiseptic fluid of some sort, and a large roll of dressing material—be a long time selecting the necessary instruments; you will thus acquire the reputation of being extremely cautious, besides being thoroughly equipped. Another art of value,

in certain cases, is to substitute a grave affection for a simple one in your diagnosis; call a sore-throat diphtheria, an ephemeral fever typhoidal, and so on to the end of the chapter, and you will acquire the reputation of being a good typhoid fever doctor, or great on diphtheria; speak confidentially to all with whom you meet of the grave responsibilities attending your many cases, obstetrical, gynecological or otherwise, and especially emphasize the precautions taken to prevent blood-poisoning; sigh heavily from over-work; congratulate yourself upon rescuing patients from the very jaws of death, whom doctors A. B. C. and D. had given over as beyond recovery; make a display of as much high-sounding technical phraseology as possible; be familiar with neurotic technology and the germ theory; learnedly discourse on *le petit mal intellectuel*, the movements *en manege* and the prodromal pre-epileptic syncopic vertigenous paroxysms; emphasize the importance of micro-organisms, autogenetic and heterogenetic, and bacteriological cultures, pathogenic and saprophytic, etc., etc.—it will tell, for the less the public understand it the more will they give you credit for wisdom and learning:

"*Comendant quod non intelligunt.*"

"For the dull world must honors pay to those
Who on their understanding most impose."

A patient may unjustly become dissatisfied with his doctor, and imagine he has been neglected. Should you be called to such an one, that is not seriously ill, having been discharged by his doctor because it was both proper and safe to leave the case to nature, you will manifest much surprise, not only at the neglect complained of, but as to the treatment also; become anxious for his safety, be instant in your attentions, puke, purge, sweat, blister and scarify, and thus your impressions will surely be profound, and though the poor devil slowly emerges from bed in spite of your nefarious treatment, yet you are thereafter pretty sure to have a big name in the family, and the shadow of your competitor just as sure never again to darken your pathway to that house.

The electric battery, Cammann's stethoscope, the clinical thermometer and hyperdermic syringe have been made to play a conspicuous part in this miserable business. The over-credulous have been made to believe that, with the stethoscope and thermometer,

the doctor was not only competent to elucidate all internal troubles, but to determine what they ate the day previously for dinner. I recall an instance in which a frightened and struggling child was forcibly held and brandy subcutaneously injected for a slight cero-sanguineous oozing from an insignificant abrasion of the eye-lid. The whining impostor gravely informed the sympathizing parents that an artery had been cut and that the child was in imminent peril and rapidly sinking. This brazen and brutal fraud not only went unchallenged, but gave enthusiastic satisfaction.

If you reside in the country, join the Alliance and stand aloof from all medical societies and associations, speak of them as rings and cliques of oppression and extortion, with which you have no sympathy or fellowship. Let your motto be, "get practice, honestly if you can, but anyhow get practice." Finally, when you have obtained a footing in the community, act upon the principle that your patrons are your personal property, and never let an opportunity pass to put them under obligations to you; should any of them be taken suddenly ill, or an accident befall them, and another physician is called and relief has been promptly obtained, be sure to visit them and express your regrets that you were not notified; by no means endorse the treatment, although it was eminently proper; speak of it as being a very hazardous procedure, and with emphasis assert that it was laid down in the books as one of the "dont's in medicine," and that they had narrowly escaped a serious calamity.

The following, from a newspaper, explains itself :

"Doctor ——— has returned from Philadelphia, where for the past two months he has been taking a post-graduate course in medicine at the University of Pennsylvania, from which institution he was graduated twenty-seven years ago. While in Philadelphia the Doctor stood successfully several competitive examinations, and also attended daily the University, Blockley and Pennsylvania Hospitals, where upwards of 2,000 patients received treatment and made a special study of various forms of disease most commonly met with in this portion of the country, and their special treatment as practiced by some of the most eminent physicians and surgeons Many of the most important diseases incident to this latitude he has thoroughly familiarized himself with, and takes pleasure in

offering his professional services to the public, feeling that he is better prepared for the successful practice of medicine."

Another card says:

"Doctor ———— offers his professional services to the citizens of R——— and surrounding country. Many years of experience and familiar acquaintance with the science and practice of medicine enables him to give the highest satisfaction. Old patrons will find him still faithful, and new ones will receive every attention. Satisfaction guaranteed as to charges"

I have heard it said of doctors that they had become so brazenly desperate as to besmirch their professional escutcheon by asking for practice out-right, and at the same time under-bid their more worthy and more honorable competitors.

One of the most refined and successful methods for obtaining notoriety is to be found in medical literature. It is a notable and praiseworthy fact that medical literature is pregnant with valuable contributions by accurate observers and truthful reporters. However, we cannot overlook the fact that there are a few whose professional morale is overshadowed by that most direful idiosyncrasy, cacoethes scribendi, who write at all times and upon all subjects with an eye single to the advancement of self-glorification; and many head their articles with such an appalling array of titles that one becomes fatigued, if not alarmed, in reading the marvelous appellations of honor before he gets to the subject-matter. Much could be said of the professional obliquities practiced by some of the leading surgeons and physicians who have established private hospitals or retreats for the sick. Many of these gentlemen have taken deservedly high rank, not only for their medical proficiency and surgical skill, but also for their rigid observance of honorable professional deportment; while others seem to aspire to an equally high distinction for the violation of ethical proprieties in their dealings with their less favored but more honorable brethren who entrust patients with them because of superior advantages offered for some special treatment, surgical or otherwise.

I could continue the list *ad infinitum*, but it is time to stop, lest I worry your patience. A man who, by a dexterous application of the arts and means referred to cannot succeed in getting practice and retain his place as an honorable man within the fold of the regular profession. For one to pursue such dishonorable

methods to secure patronage must of necessity in every respect become despicable, professionally dishonest, personally deceitful disreputable and treacherous

Gentlemen, perhaps you may think me rather hypercritical, and maybe withal something of a cynic, and therefore probably drew the scene with rather too heavy a hand, and yet we all can recognize some lines which, alas! are too commonly visible in any but well-organized communities. Though in localities in which no organization of the medical body exists, the large number of medical men may act in the same true spirit of the profession, and admitting that if there was no written code, that yet the true physician would carry out its spirit, just as the true gentleman would always be found acting in accordance with the spirit of the civil law, if even it was not the law of the land, yet, just as the necessities of society at large demand organic laws, so on the same principle is organization and a written code demanded by every profession, with the clergy, as with the military, it is indeed the fundamental rule of existence. The truth is, that, owing to human depravity, we are naturally a little mean, and are instinctively predisposed to be a little jealous each of the other. This is, when we analyze it, but an extension of the natural law of self-preservation beyond proper limits. Now, I think I may truthfully say that there is no more effectual way of suppressing this evil phase of our nature, in its multifarious disgusting forms, as we frequently see it cropping out in the folds of our profession, than by the accepted public acknowledgment on the part of the better portion of our profession of a written code. Let the public at large once be fully cognizant of our standard, and half the incentive to self-abasement will have been taken away; for they, the audience before whom we play our respective parts, can at once measure each of us by our own rules, and the most respectable part of society learns soon to look with disgust upon the tricks of the tradesman in the professional man Sir Benjamin Brodie once said that "Medicine is a most noble profession, but a miserable trade!" Fully imbue society with this idea, and any over-pushing, grasping desire for the world's patronage, at the expense of honorable independence and the nobler feelings, or the sacrifice of the rights of others, and the violator will by the public as by ourselves be viewed with derisive contempt, and then, and not till then, will this hydra-

headed modern Octopus of charlatanism, which stalks abroad at meridian sun, clothed in the habiliments of a divinely inspired vocation, while within is a charnel-house of professional depravity, from which emits an insufferable stench, equalled only by the foul and loathsome effluvium that emanates from that filthiest of all places on the habitable globe, 'The Black Hole of Calcutta,' not only be shorn of its tentacles, but be buried beyond the hope of resurrection, so that neither man nor angel will ever roll the stone from its tomb again. The foundation of all pure ethical principles is in the golden rule, 'Do unto others as you would have them do unto you,' and its spirit has breathed into all the established rules for professional intercourse with which we are acquainted. It permeates the noble principles of that prince of surgeons of five hundred years ago, Guy, of Chauliac, who summed up the character of the true surgeon by saying that 'He should be courteous and condescending, bold in security, cautious in time of danger, avoiding impracticabilities, compassionate to the infirm, benevolent to his associates, circumspect in prognostication, chaste, sober, pious and merciful, not greedy of gain, no extortioner, but looking for his fee in moderation, according to the extent of his services, the ability of his patient, the result of his treatment and a proper sense of his own dignity."

And now, in our own code of ethics written by the ever-to-be-honored Percival, and adopted by the American Medical Association and by this Society, we have as perfect a system of rules for our government, founded on as pure a sytem of morality as the most rigid moralist could ever wish for, a code which, from its essential nature, must always purify and ennoble those living in accordance with its precepts. How men of our profession, of good sense and good intentions, can ever live and practice their vocation in the same community without being on good terms with each other, is not easily explicable, for there is certainly no other profession, the inherent nature of the practice of which so inevitably and so repeatedly demands coöperation and mutual kindly services. As has been said by one of eminence in our profession · "If society does treat the medical man harshly and unkindly, is it any worse than medical men treat each other? Many of the worst things ever said of a physician originally came from another physician's tongue." It would always be well for that man who should be

ready to rejoice at the mishaps of his neighbor, and dishonorably profit by his misfortunes, to reflect that, being human, we are all thereby fallible, and that the day may not be far distant when he himself may stand in sore need of and most wistfully crave all human sympathy; and furthermore, that he who does injustice to one of his peers, directly wounds his profession, and reflectively himself, but as the organization of individvals into communities is greatly auxiliary to individual effort, whether it be for the furtherance of material interests or the practice of the moral virtues, so is our profession benefited by the formation of societies, certainly one of the most powerful levers impelling the advance of medical science during the past thirty years, has been the establishment of the numerous medical societies which during that time have grown up in Europe and this country. Before these every alleged discovery with any pretentions to importance is brought up, and undergoes the ordeal of scientific discussion by the ablest minds of our profession. Before these a thousand pretentious theories which would have lived some time in the world, have promptly received their quietus; and it has been, on the other hand, through its ventilation here, that many an opinion or method which would otherwise have been slow of development, has at once obtained its proper standing with the profession. The great medical societies of the world are the winnowing machines of the profession, serving the most useful purpose of sifting the good from the bad, the true from the false. Let the medical societies of Paris, Berlin, New York and Vienna be blotted out to-day, and the loss would soon be sensibly felt by the profession throughout the world. Is there a member of this Society present to-day but will agree with me in affirming that, as an individual practitioner, he has been instructed and elevated morally as well as mentally from the united association. And furthermore, I believe I speak the truth when I say that, as a result of the Society's organization and operations, our profession, and as a consequence we, as individual practitioners, have been elevated an hundred per cent. in the eyes of the respective communities in whose midst we belong. What, gentlemen, are our prospects for the future? Has our Society reached its acmé of efficiency, and is it reasonable to expect the fruits of the years before us to excel the products of those of the past, while acknowleding that there remains a wide margin for improvement.

It has been justly said, "A very large class enter the learned professions with no higher motives than such as characterize commercial enterprises, pursuing them as a business, and more anxious to erect monuments like that of Nebuchadnezzar in the plain of Dura, than such as fill the niches of fame.

> 'Make sordid wealth the object and sole
> End of their industrious aims.'"

But, gentlemen, though we know that, while we have our own, with perhaps many other hungry mouths to fill, we must ever instinctively feel that to derive an income from our professional labors must be one of our first objects, an object the worthiness of which we have sanctioned by the inspired authority which tells us, "He who provideth not for his household is worse than an infidel;" yet we should not forget that we have it from the same authority that "Man shall not live by bread alone."

Dr. George B. Wood once declared that "He who enters the medical profession with a mercenary spirit will almost necessarily come short of its highest requirements. Aiming at the appearance rather than the reality of skill, he will think more of the impression he may make on others than of a proper understanding of the disease! The immortal Sydenham used to say, "I have thought it a greater happiness to discover a certain method of curing the slightest disease than to accumulate the largest fortune." The illustrious Fothergill once said, "My only wish was to do what little business might fall to my share as well as possible, and to banish all thoughts of practicing physic as a money-getting trade, with the same solicitude as I would the suggestions of vice or intemperance." Lord Bacon has said that "Every man is a debtor to his profession from the which, as men do of course seek to receive countenance and profit, so ought to endeavor themselves, by way of amends, to be a help and ornament thereunto." Our code makes the same acknowledgment in the paragraph which declares that "Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to the extent of his best abilities to maintain its dignity and honor, to exalt its standing and to extend the bounds of its usefulness."

The plain truth is that those who intrust themselves to our care

have a right to require of us a knowledge of our profession fully up to the advances of the day, and for the lack of the possession of such knowledge, involving human life and health as it does, we stand responsible before God and in the presence of the law.

In conclusion, gentlemen, we ought always remember that "of unity cometh strength," and that, as whatever of individual honors come to us are reflected upon our Society, so as individual members composing the Society, whatever of honors or glory cometh to her, is reflected back upon us. And now may I say, in the name of every member here present to-day, that of whatever of joy or sorrow the future may bring to us, nerved to a triple resolve by the recollections of the past, may the future always find us true and worthy worshippers at the altar of science, ever lending the best powers of head, heart and hand toward adorning and keeping clean the niche in the great temple of medicine which has fallen to the lot of the North Carolina Medical Society.

Since our last meeting the icy hand of death has invaded our ranks and plucked some of our loveliest blossoms. Drs. Edmond F. Ashe, Abraham Van Wick Budd, R. L. Beall and others are no more. To us they were true and tried men, faithful to every duty; wore the honors of their profession with uprightness of character, gentlemanly deportment and honorable proficiency. Beloved in life and lamented in death; they have passed to the mysteries beyond, and are resting peacefully upon their laurels won and worthily worn during life. While we drop the tear of sympathy and sorrow for our loss, let us resolve to imitate the example of their noble and unselfish lives, follow their precepts, embalm their virtues, and indelibly stamp them upon our memories and characters.

On motion, the address of the President was referred to the Committee on Publication.

Committee on Finance.

The President appointed as the Committee on Finance, Drs. M. P. Perry, D. T. Tayloe and S. D. Booth.

Committee on Credentials.

The following were announced as the Committee on Credentials: Drs. Thos. S. Burbank, Albert Anderson, W. C. Galloway and I. G. Riddick.

Resignation of the Secretary.

The Secretary then read the resignation of Dr. J. M. Hays as Secretary.

On motion, the Society accepted the resignation of Dr. Hays, and extended to him their thanks for the efficient manner in which he had attended to the duties of his office.

On motion, the morning session then adjourned.

FIRST DAY—Afternoon Session.

The Society was called to order by the President at 3 o'clock.

The Committee on Credentials made a partial report, which was adopted. (The reports of this Committee will be given in full in the proceedings of the last day.)

Delegates from Randolph County Medical Society not Accepted.

The credentials of the delegates from the Medical Society of Randolph County were presented, but it being ascertained that the said Society had failed to comply with the Constitution of the State Society, the delegates were not admitted as such.

Dr. J. W. Long, one of the delegates, explained that in his county the profession took but little interest in Medical Society matters, and that they had effected the organization of the County Society for the purpose of stimulating their interest in this kind of work. Their Society had been organized on the line of the State Society, but he confessed to ignorance of the Constitution of the State Society in regard to county societies.

Resolution to Amend the Constitution—Baker.

Dr. J. M. Baker offered a resolution to amend the Constitution in regard to the appointment of the chairmen of sections; that the Secretary be empowered to appoint essayists within thirty days after the adjournment of the Society, to prepare papers on subjects named by the Secretary, and that these essayists report to him at least sixty days prior to the meeting at which their essays are to be presented to be used by him in preparing a programme.

In offering this resolution Dr. Baker said that this plan had been

adopted by nearly every society in the United States. In answer to an inquiry, he explained that this plan gives the Secretary the arrangement of the programme for the next meeting.

The question arose as to whether action should not be deferred until the next meeting of the Society, on the ground that the resolution involved a change in the Constitution of the Society.

Some discussion was entered into which resulted in the ruling of the President that it did involve a change in the Constitution, and should lay over to the next session.

Dr. C. M. Poole offered an amendment to the Constitution concerning the dropping of names of members for the non-payment of dues. Attention being called to the fact that a committee had been appointed at the last meeting of the Society to codify and revise the entire Constitution and suggest a substitute for the whole, and that all of the matters had been considered by that committee in their report, he withdrew his resolution.

Vacancies Filled on the Board of Censors.

The President appointed to fill vacancies on the Board of Censors, Drs. H. T. Bahnson and W. J. Jones.

Communication from the North Carolina Pharmaceutical Association.

The Secretary read the following communication from the North Carolina Pharmaceutical Association:

NORTH CAROLINA PHARMACEUTICAL ASSOCIATION,
OXFORD, N. C., May 17, 1892.

The Medical Society of North Carolina:

GENTLEMEN:—At the last annual meeting of our Association, held at Morehead City, July 8–9, upon solicitation of the Committee which you sent there, and that the fraternal feelings which had been established between the two professions might be continued, the following delegates were appointed to this meeting of your Society: F. W. Hancock, of Oxford; W. H. Green, of Wilmington; John H. Hardin, of Wilmington. It was further requested by your Committee and endorsed by your Association, that such delegations may be sent, annually, from each of the two organizations to the meeting of the other.

Yours, very truly, F. W. HANCOCK, *Secretary.*

Dr. S. D. Booth thought it would be well to hear the report of the Committee appointed at the last meeting of the Society to confer with the Pharmaceutical Association before acting on the communication. He then presented the following

Report of the Committee Appointed to Confer with the North Carolina Pharmaceutical Association.

He said that on his way to the Druggist's Convention he found much objection among the druggists to consider the matter at all. They seemed to think that we were encroaching on their rights; but at the Convention he found the druggists very pleasant and the Committe were treated very courteously, while the druggists seemed inclined to do everything that was right in the matter. He had suggested to them that the two bodies send representatives each to the other, and that this change of ideas would accomplish good.

The report of the Committee was received.

On motion, the communication from the druggists was received and the delegates were invited to seats in the sessions of the Society.

Dr. K. P. Battle read a paper on Hypertrophy of the Third or Pharyngeal Tonsil—Adenoid Vegetation in the Naso-Pharynx in Children. [See July JOURNAL.]

On motion, Dr. Battle's paper was referred to the Committee on Publication.

Dr. S. S Satchwell read a paper entitled Our Pine Forests as a Factor of Health. [See July JOURNAL]

The paper was referred to the Committee on Publication.

Report of Committee on Credentials.

The Committee on Credentials made a partial report, which was adopted.

Dr. Joseph Graham announced that he would present a specimen and read a report of a new operation for treating the pedicle in abdominal hysterectomy.

On motion, the Society adjourned until 8 o'clock.

FIRST DAY—Evening Session.

The Society was called to order at 8 : 30 o'clock by the President.

The Chair called for the report of the Chairman of the Section on Surgery, but there was no response.

Dr. W. J. Jones read a paper on Rectal Pathology. [See subsequent number of JOURNAL.]

Dr. F. W. Brown, the regularly appointed Leader of Debate, being absent, Dr. Thomas Hill opened the debate on the subject chosen by Dr. Brown—*Puerperal Eclampsia.*

He called it "this terrible disease—the most frightful that the physician is called upon to treat." As far as his reading goes, the cause of the trouble seems to be uræmic poisoning with a condition of albuminuria. His idea of the treatment is that it should be prophylactic, and believes that we have a preventive for the disease in chlorate of potash given in 10- or 12-grain doses. He has had experience with it for thirty years, and thinks he has succeeded in warding off an attack, for he has used it in patients whose condition would lead him to expect the disease. The treatment during the seizure should be morphia and chloral. In reply to a question as to how he would treat a case occurring unexpectedly at the fifth or sixth month, he said that he would use opium and chloroform to break up the attack and then push the chlorate of potash. As to the rationale of the treatment by the chlorate of potash his idea was that it oxygenated the blood and freed the urine of albumen.

Dr. Booth thought the best thing to do was to bleed and bleed vigorously in every case unless he thought the bleeding itself would kill the patient. Then deliver by the quickest means in your possession, after which you will get good results from morphia. Give all the morphine she will bear to keep off the convulsions. He has not found that morphine acts well before delivery, why, he does not know.

Dr. Parris recommended the hypodermatic injection of veratrum viride. He cited a case in which headache for a few days was followed by convulsions. Dilatation having just begun, a soft catheter was introduced into the uterus and left in position. Dilatation was completed in a few hours and delivery effected. In about three hours the patient had a most terrific convulsion to which she nearly succumbed. Ten drops of veratrum was given, the pulse being 140. Within an hour the pulse was reduced to 40, whereupon sweating began, and the patient returned to consciousness. In about one hour the pulse began to rise again, reaching 120. Vera-

trum was again administered with the reduction of the pulse to 50, where it remained a long time. The administration of veratrum was continued during the night in smaller doses, and the patient finally recovered, and the success with this patient led him to regard the treatment favorably. This patient had had convulsions in several labors previous to this one.

Dr. Bulluck's experience had been that, while neither bleeding nor chloral had always checked the convulsions veratrum had. If you get the pulse under 55 the woman will not have convulsions, no matter what the physiological conditions are. You can use as much as 25 drops hypodermatically. He has been using it fifteen years and has never seen a case in which it failed.

Dr. Alston has had three cases in the last three months. He used bromide of potassium and chloral mixed together with slight bleeding. He called attention to the fact that we sometimes have convulsions when there is excessive hæmorrhage; in these cases we cannot bleed.

Dr. W. J. Jones thought we should look for the cause of the convulsions. Is it a reflex excitability? Is it a case of toxæmia? He was not satisfied that albumin in the urine was the cause. We are directed to the kidneys as concerned in the production of the convulsions, and then we find albumen in the urine. That they may be due to improper elimination, he cited a case in which the mere introduction of the catheter gave relief. If the convulsions be due to improper elimination, we would not expect bleeding to give relief, but would rather look to restoring the functions of the kidneys, and of aiding their action by that of the skin and the bowel. After all the gateways are open for the elimination of the waste product we might give chlorate of potash. Use chloral and morphia to control the convulsions until you can get the effect of the veratrum.

Dr. Roberts, in his experience, had been weaned from the idea that the lancet was the first and only thing that would do any good. He delivers his patients as quickly as possible, and if he sees any evidence of convulsions he gives a brisk cathartic.

Dr. Pierce thought that bleeding should depend upon whether the patient were in a sthenic or asthenic condition. He called attention to the good effects of the bromide of potash with ergot. They are derivatives from the brain and excitants of the uterus,

bringing on contractions. Also recommended mercury in large doses on account of its derivative action. If the convulsions depend on uræmia, and there is much poison in the blood, you will not have time to eliminate it, and nine cases out of ten will die anyway.

Dr. McNeill, in several hundred cases of obstetrics, has never seen a case of eclampsia. He thinks this is due to his frequent observance of the women whom he was to attend in their confinements. He thinks prophylaxis the most important of all treatment.

Dr. Haigh thought while the members apparently differed in their treatment of the condition under discussion it was all on the same line. He thought that the convulsions were due rather to reflex irritation, and that when the uterus has been relieved there is one great point gained, and the second point is to allay the nervous centers. He thought all the remedies good. He was interested in the use of veratrum, though he had never had occasion to use it. In those forms where the brain is seriously threatened it is without doubt, imperatively called for, and gives the quickest relief of any remedy. He called attention to those hysterical cases in which we see that the patient is in little danger, but in those cases in which the brain is threatened immediately after the first convulsion, there is stertorous breathing, and there will be a lesion of the brain unless there is relief. In these he has never seen a remedy to equal a good free letting of blood. He has had no cases of late years, and attributes the fact to his having adopted the prophylactic rule of the frequent examination of the pregnant women.

Dr. Payne, Jr., thanked Dr. Haigh for expressing what he had found true in his experience. He spoke of the diversified opinions as to the cause, and thought the practical point with us is as to the successful method of treatment. He recommended as a routine treatment to bleed and then use morphine and veratrum hypodermatically, and in the vast majority of cases you will succeed.

Dr. Chambers said that in several autopsies he had witnessed in which the cause of death was puerperal convulsions, there was no distinctive lesion in the kidney which would point to them as the cause of the trouble. He thought we were discussing a number of clinical conditions under the name of puerperal convulsions, and this accounted for the difference of treatment. He divided the

disease into two classes—one gets well under any treatment. On the surface clinically they appear just as horrible as the other class that die regardless of any treatment. We are brought to face the fact that all diseases have a mortality that belongs to them whatever be the treatment.

In one of the autopsies there was a lesion of the kidney, but there was no more reason to say that the woman died of puerperal convulsions than any other patient who died with an acute nephritis. In the second case there was a normal condition of the kidney as far as the naked eye or the microscope could say. In the third case there was a marked congestion of the kidneys and the internal organs generally which could be accounted for by the fact that the convulsions had continued for several hours before death. All these three women presented the clinical condition known as puerperal eclampsia, but there is a question whether any two of them died from the same cause. He cited a fatal case that occurred at the Maternity Hospital in which the patient received all the attention that is given to the patients in that institution. For a month prior to delivery the urine showed no albumen, nor was there any twelve hours after labor. She had a convulsion after labor which lasted eighteen hours, and immediately albumen appeared in the urine. He thought we should treat the patient and not the convulsions. It is impossible for one man to tell another just what he would do under a certain circumstance.

Dr. Herring, after losing eight cases consecutively, had obtained good results from large doses of morphia.

Report of Committee on Credentials.

A partial report was received from the Committee on Credentials. On motion, the report was received.

Committee on Nominations.

The Chairman announced the following members as the Committee on Nominations: Drs. J. W. McNeill, H. H. Harris, Thos. S. Burbank, W. H. Harrell and E. C. Laird.

The Secretary read an invitation from the Robert Portner Brewery Company for the members to visit their plant and test the quality of their beer. The Company were thanked for their cordial invitation.

On motion, the Society adjourned.

SECOND DAY—Morning Session.

The Society was called to order at 10 o'clock by the President.

Dr. Geo. G. Thomas offered the report of the Committee appointed at the last meeting to revise and codify the Constitution and suggest a substitute for the whole.

On motion the thanks of the Society were extended to the Committee, and they were authorized to have 300 (afterwards increased to 500) copies of the report printed for distribution, and action on the report was made the special order of business for the second afternoon of the next meeting of the Society. The motion was amended, requiring a copy of the report to be mailed to each member of the Society at least sixty days previous to the next meeting.

Report of Committee on Credentials.

The Committee on Credentials made a report, which was received.

A telegram was read from Drs. Charles and Francis Duffy, expressing their regret at their inability to attend the meeting.

Report of Section on Gynecology.

Dr. M. H. Fletcher presented the report of the Chairman of the Section on Gynecology.

On motion, the report was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

The President extended the courtesies of the floor to Drs. Michael Greer and D. P. Bachelor.

Dr. Joseph Graham read a paper and presented a specimen on Supra-Pubic Operation for Removal of the Uterus with Sub-Peritoneal Treatment for the Pedicle.

On motion the thanks of the Society were extended to Dr. Graham, and his paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Report of Committee on Credentials.

The Committee on Credentials made a report, which was accepted

On motion, the order of business was suspended and Dr. W. W. Lane read a paper entitled Hospital Notes, and exhibited two cases:

one for removal of the entire upper extremity with scapula and a portion of the clavicle, and the other for supra-pubic operation for artificial urethra of three years standing.

The members were much interested in the cases, and the thanks of the Society were, on motion, extended to Dr. Lane, and his paper was referred to the Committee on Publication. [See subsequent number of JOURNAL]

Reports of the Chairmen of Sections on Materia Medica and Medical Jurisprudence.

The Secretary presented the reports of the Chairmen of the Sections on Materia Medica and Medical Jurisprudence, both of which were referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Report of Board of Censors.

Dr. W. H. H. Cobb offered the following report from the Board of Censors :

"WILMINGTON, N. C., May 18, 1892.

"We are reliably informed, and know, that Dr. M. E. Robinson, of Goldsboro, N. C., a member of this Society, heretofore in good standing, has advertised, and is now advertising, in the local papers, a nostrum known as Garden's Chloride of Gold Treatment for Drunkenness, etc., and guaranteeing a cure; and whereas, such practice is in direct violation of both the spirit and the letter of the Code of Ethics adopted by this Society for the government of its members, the Board of Censors respectfully advise that the said Dr. M. E. Robinson be suspended from the rights of membership in this Society until such time as he can, after appeal for trial by the Board of Censors, purge himself from the odium of such dishonorable and unprofessional conduct.

"We also suggest that the same action be taken in the case of Dr. J. B Robertson, of Winston, N. C., who has similarly advertised and guaranteed a cure for the same habits, known as Hertginger's treatment."

CONJOINT SESSION WITH STATE BOARD OF HEALTH.

The hour having arrived for the Conjoint Session of the Society

with the State Board of Health, Dr. H. T. Bahnson, President of the State Board of Health, assumed the Chair and called the Conjoint Session to order.

Resignation of Dr. J. M. Baker..

The Secretary read the resignation of Dr. J. M. Baker, which, on motion, was accepted.

A PARTIAL SYNOPSIS OF THE REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH.

Influenza.

Since the last report of the Secretary the State has been visited by another epidemic of Influenza. It would be more correct to say that all during the year there were cases reported from some of the counties. For instance, in June, from Macon, Mitchell, New Hanover and Pender; July, Greene, Macon aud Orange; disappearing in August, appearing again in September in Mitchell and Orange, the next month in Orange and Davidson. In November it set in again in earnest, being reported from 11 counties; in December it had reached 36 counties, mounting to 41 in January, declining again to 36 counties in February.

There are no statistics to determine the death-rate or the number of persons sick with influenza during the periods named. The reports from our towns do not specify influenza as a cause, as in the scheme so far adopted it seemed only practicable to name such diseases as gave indication of the general state of the public health. Without being able to appeal to statistics to demonstrate the loss to the State by death and disability, we know it has been great in hastening the death of old persons and impairing the health of those of middle age.

After having had three years experience with the disease, and the voluminous statistics of all nations—for none have escaped—the practical question to sanitarians is, *How can its spread be averted?* That it is an infectious disease, has been clearly proven by the experience of the best observers, and in England this belief has been so firmly held that a person in a small town was fined for coming on the streets before he was entirely well of influenza. It must be admitted that, as much information as we have accumu-

lated upon the subject, there seems to be no practicable means of preventing or arresting it. The epidemics in towns have been traced to the arrival of one person from an infected town, but its spread is so rapid and mysterious, and the sickness may be of such an unnoteworthy nature as not to require the attention of a physician, or not to be distinguished from usual non epidemic catarrh.

As malaria formerly entered into nearly all of our diseases on the sea-coast and in the alluvial valleys of the interior all likely to partake of the malarial type, even surgical cases of a serious nature being almost uniformly dominated by this malarial poison, influenza seems to have asserted the same predominance, either communicating its type to all sickness, or attacking the patient at the most vulnerable point, lighting up rheumatism and gout, precipitating the consumptive in his downward course. While it has had no such destructive influence as the shorter ravages of cholera and small-pox, it has caused losses to towns, and especially to insurance companies and societies, in excess of that of any sickness which has visited the world.*

The domesticated animals have suffered but little from the epidemic in our State, even estimating that the uncertain word "distemper," as used by most reporters, may or may not mean influenza, few counties have reported its presence.

Consumption.

This disease still continues to be the most important one that afflicts the human race, because of its fatality and universality. In North Carolina we have nothing like the prevalence of the disease that is found in the States North, East and West of us, which may be accounted for in one way by the sparseness of our population and the mildness of our climate. We are speaking, though, as if we had valuable statistics to prove our death-rate, whereas we have only the records of from 13 to 15 towns with a population of from 80,000 to 100,000 to estimate upon.

*This immense loss of money is less burdensome now than it appeared years ago, because it is now borne by insurance companies, and in the days of the plague, small-pox, by individuals, these great epidemics occurring before capital and brotherhood associations had ventured for profit and for philanthropy to provide for the widow and orphan.

The increased ratio of the death-rate among the negroes is still a striking feature. The causes of this disproportion lie deep in the social conditions of the negro, and the remedy is so far in the future as to seem now allbut hopeless. If contagion be admitted as a potent cause, none are more subjected to it than the negroes huddled in the suburbs of every Southern town in the unwholesome shanties. If syphilis, hereditary and acquired, can lay the foundation for it, the cause is abounding. But the tuberculosis of negroes is more largely abdominal than with the whites, so much so that *tabes mesenterica* was designated negro consumption par excellence by Dr. Cartwright.

The negro has not become so important a social factor as to have become as interesting pathologically as he may be some day, and so all his diseases are not touched upon in the text-books. Even from Baltimore, which is nearly a Southern town, we have a new Practice of Medicine, and the word negro is not so much as mentioned in the index.

In the absence of more elaborate statistics, we are aware that death is playing havoc with the freedmen, and that the massing of them in the town is a potent cause of all their constitutional diseases. In the month of March an insurance solicitor informed the Secretary that his company had paid in Wilmington a policy for every day in one week, and the report of Dr. Potter, Superintendent of Health of New Hanover County, shows that for March, 1892, the deaths from consumption was 4. There is no remedy applicable to this state of things like the return of the negroes to the farms, even if this be applicable. For the moment you discuss the question, the ways and means rise as insuperable obstacles There has been a removal of negroes from the eastern portion of the State, but the agents who solicited them as laborers for other States found that the town negro was too well satisfied with his easy life there to be beguiled into the turpentine forests of Georgia, the sugar plantations of Louisiana, or the cotton fields of Mississippi. The means are not obvious whereby the consummation of the seggregation of these great masses among the farming districts may be accomplished, but it will come in time, or the race is doomed to a large decline by disease, chief among which is consumption.

Vital Statistics of the Negro.

In "THE ARENA" for April, 1892, we have a thoughtful study of the vital statistics among the negroes. The writer was greatly embarrassed in his investigation of the question by the lack of statistics from the States. Since the days of the faithful statistician, DeBow, Superintendent of the seventh census, no census has been so reliable, especially as to the negro, and the records of few Southern cities were kept regularly and systematically.

The wild conjectures about the immense increase of the negro population made by several contributors to statistical and political papers was contrary to our knowledge of the actual condition of the race. Mr. Frederick L. Hoffman, the author of the article in "THE ARENA" above-mentioned, tabulates the white and colored population of ten Southern States for 1890 from the census, showing the percentage increase among both races in these States. In the State of North Carolina, for instance. the increase among the whites for the past decade was 20.98 p. c., while for the negroes it was 6.76 p. c., two-thirds less. In Mississippi and Arkansas alone was the increase of the negroes greater than among the whites, while the total average reads, increase among the whites for the ten States 25.07 p. c., and for the negroes 18.29 p. c. Statistics are not at hand to inform us whether the exportation of negroes from the north tier of Southern States to Mississippi and Arkansas went to swell the ratio of increase.

But consumption among all the classes of people in North Carolina is a leading question, and one that we ought to meet with the aid of the large mass of facts which are being collected, with some increased degree of hope The State sets apart hospitals for the care of the insane, not with positive despair about their future, but with a feeling that a peaceful death is the best solution of their sad estate, is it not worth the while for the State to show her interest in this great class of curable consumptives and open free sanitaria for an experiment on a large scale at the public expense, and so restore men now hopeless to their places as citizens. Private sanitaria in our State are attracting the attention of the people of the Northern and Western States, and are doing good work. Is not the experiment far enough advanced to encourage the State or philanthropists to undertake free sanitaria for these afflicted citizens.

A question has arisen as to the colonization of consumptives, if it is not unadvisable for the salubrious States fitted for the location of sanitaria to object on the ground of the implantation of the scourge by the massing of the consumptive in heretofore exempt localities. We believe this objection would not hold where such precautions and sanitary rules are adhered to as in the sanitaria. It is well known, though, that when a locality gets a reputation for its salubrity for consumptives, hotels and private houses are thronged by these unfortunate invalids, where hygienic discipline is impossible.

The prophylaxis of consumption is already a practical question, and is assuming a rational stage of practice, through the sanitary associations in the United States.

The American Public Health Association at the Charleston meeting in 1890 had its practical prophylaxis up for discussion, and the remarks of those who took part in the debate showed how seriously some of the leading sanitarians in the country were studying the question.

The Conference of State Boards of Health which took place in Washington in May, 1891, reported through their committee some resolutions bearing upon the practice of prophylaxis, as follows:

"GENTLEMEN:—Your committee begs leave to report the following resolutions:

"1. That it is the opinion of this Conference that tuberculosis is a zymotic disease; that its germs are developed within the blood and tissues of man and various animals, and that these germs are capable of an existence external to the body for a number of months, especially in dried sputum, and in places where least exposed to the free action of the atmosphere and sunlight.

"2. That the germs of tuberculosis are conveyed in various ways to persons and animals, the principal media of these being:

(*a*) Dust containing dried sputum.

(*b*) Food, either contaminated with infected particles, or the flesh of tuberculous animals.

(*c*) Milk from phthisical mothers and tuberculous cows.

"3. That unsanitary conditions are the prime factors tending to the development and dissemination of the disease, such as:

(*a*) House and soil dampness.

(*b*) Lack of sunlight and bad ventilation.

(*c*) Bad plumbing and house-drainage.

(*d*) Over-crowding in living rooms, in schools, in workshops, in public institutions, etc.

"4. That the disease is undoubtedly disseminated through the neglect to destroy or disinfect the sputa of the phthisical, distributed as this infectious matter is.

(*a*) On infected linen (dangerous to washer-women), clothing, carpets, etc.

(*b*) On the floors and walls of houses, workshops, hospitals and hotels, especially of health resorts.

"5. That to limit the spread of tuberculosis it is necessary that notification by physicians and householders of its existence be made compulsory, thereby enabling health authorities to examine into the sanitary surroundings of those affected, and to make provision for the adoption of the necessary precautions against infection to the healthy.

"6. That municipal inspection of dressed meat and of dairy cattle be systematically carried out, and that the notification of the health authorities by owners of infected animals be made compulsory.

"7. That municipal and State governments ought to aid in the work of limiting the disease by the establishment of institutions especially designed for the reception and treatment of the phthisical, and so situated that while minimizing the danger to the general community, they may likewise supply means for outdoor work and exercise, suited to the condition of different patients.

"PETER H. BRYCE, M.D., *Ch'm.*
"LUCIEN F. SALOMON, M.D.
"PROF. V. C. VAUGHAN."

They are aiding in the progress of prophylactic practice when we as physicians disseminate such information among their patients and insist on its rigid rules when they are attending consumptives. It will be a long time before we can realize the ideal practice set forth by the resolutions of the "Conference," but we can patiently do our share of it and await the education of the people.

Relation of Tuberculosis to Animals.

It is too large a subject to undertake in this report to point out

the possibility of the transmission of the disease through the milk and flesh of bovine animals.

We have a remarkable demonstration of the existence of tuberculosis in a fine herd of cattle, reported in the *Medical News* of Philadelphia, and reproduced in the NORTH CAROLINA MEDICAL JOURNAL for April, 1892.

It must not be presumed that because this fluid was made in Philadelphia by specialists that it is rare, the serious question is how far-spread the disease may be in the cattle in our State. Since we pay no attention to the rudiments of flesh-food inspection, there is little promise that the detection of the disease will be sought after to the apparent detriment of the owners of valuable property. Fortunately, as to the dangers from beef as food, the purific tion by fire in cooking is our present safeguard. In fact, it is not at all proven that cases can be traced from the consumption of beef. Notwithstanding this it is no longer a subject we may neglect with impunity.

The History of Small-Pox in North Carolina—The Introduction of Inoculation and Vaccination; the Condition of the Inmates of our Jails and Poor Houses as to Protection by Vaccination.

The Small-Pox was brought to America by the earlier settlers. It ravaged the Indian tribes fearfully. Lawson* speaks of the Sewee Indians thus: "The small-pox has destroyed many thousands of these natives who, no sooner than they were attacked with the violent fevers and burning which attends that distemper, fling themselves overhead in the water, in the very extremity of the disease, which, shutting up the pores, hinders a kindly evacuation of the pestilential matter and drives it back, by which means death most commonly ensues."

Dr. John Brickell, in his National History of North Carolina,† says that the small-pox never visited North Carolina but once, and that in the late Indian war, which destroyed most of those savages that were seized with it.

The Small-Pox spread in Salem, having been brought there by a company of cavalry of the Pulaski Legion, which in 1779 camped

*Dublin, 1737, p. 253.

†History of North Carolina, Raleigh edition, 1860, p. 25.

there several days. Forty persons suffered from the disease, of whom only two died. Two years after that (in 1781) inoculation was introduced in Salem.* So meagre are statistics relating to the diseases and causes of death of all that period from the time of the first settlements to the time of the organization of the North Carolina Boad of Health that nothing is accurately known except the items one can gather from old letters and newspapers, or diaries such as that of Thacher's itinerary American Army in the war of 1777. One exception can be made to the diary so carefully preserved by the Moravian Church in their Archives. Although the note given to current events is short, the historian who is favored with an examination of these valuable documents will find a daily account of the births, marriages, deaths and baptisms of the members of that honored fraternity which has shed its benignant influences on the rest of the State for more than a century. It was also in Salem that the first vaccinations are recorded. In 1802 eighty persons were vaccinated there. It is likely that in Wilmington, Fayetteville, New Bern, Edenton and some of the older towns lying along the great water courses in the line of travel also had adopted vaccination, but no record has come to the eye of the writer.

We know nothing of the spread of the practice through the influence of these Christian pioneers, but if they were as diligent in the dissemination of the new prophylactic as they were in carrying the Gospel of Peace to the remotest wilds of civilization, we may be sure that they shared this beneficence with their neighbors.

Down to the period of the civil war cases of small pox occurred at long intervals and principally at the seaports. Indeed, so far apart did cases occur that at Wilmington, for instance, when a case was discovered it became necessary to rid the pest-house at Mt. Tirza of the fisherman who had taken possession, to admit the solitary case of small-pox in the person of a sailor. But with the war came an outbreak of small-pox, which increased as the four years rolled on, reaching its culmination in 1865–'66 among the great masses of freedmen who flocked to the towns when peace was established.

We all know the story of the scarcity and impurity of vaccine

*Reichel's Moravians in North Carolina; 12mo.; Salem, 1857.

virus during the war period, or if any have forgotten let them read the account of it as written by Dr. Joseph Jones (Spurious Vaccination in the Confederate Armies), and by Dr. James Bolton, of Richmond. Vaccinations which were inoculations of pus, and probably of syphilitic virus, were done from arm to arm by soldiers, and this communicated to people in civil life, causing the direst calamities before the practice could be stopped. After the war was over, and it became necessary to resort to wholesale vaccination, the virus furnished by United States Army officials was of the most unreliable character, defeating the most intelligent attempts at protecting the helpless throngs that crowded into the sea-coast towns.

The history of the small-pox from 1861 to 1866 in Wilmington alone would furnish a complete demonstration of the dangers of neglected vaccination, and the harm of spurious vaccination by crusts taken indiscriminately from doubtful vaccinifers. In the small-pox hospital here there were about 800 patients from August, 1865, to May, 1866—most of them negroes, and most of them unprotected by ante-bellum vaccinations.

There are many physicians in North Carolina who have been practising twenty-five years who have never seen a case of small-pox, but it will probably not be as many years before they will see cases, if the practice of vaccination just now is to comply with the requirements of insurance companies, most of which will not accept an applicant who is not protected by vaccination, or refuse by written declaration to pay a claim, if the death is from small-pox.

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1st. There is a considerable anti-vaccination sentiment among the people at large. A prejudice which has grown out of the echoes of the English anti-vaccination societies which are found in the newspapers, and from the lack of conviction on the part of physicians about the necessity of vaccinating infants.

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prevailing idea that the section embracing an area of about one hundred miles by fifty enjoyed a complete immunity from consumption Whether that were so he was not prepared to say because no statistics were kept. It was said that a consumptive patient carried to that country would not transmit the disease. He has seen cases that were contracted there; but he thinks his confrérès would bear him out in the assertion that the section does enjoy quite a freedom from the disease among the natives.

In the matter of the failure on the part of physicians to vaccinate, Dr. Haigh asked how were we to overcome the difficulty? A physician does not like to order a lot of vaccine virus to keep on hand in case a person desires vaccination, for the virus deteriorates by keeping, and when the case presents itself you would probably not have any virus that is good; nor would he feel exactly at his ease to advertise that he had just received a fresh lot of vaccine and was prepared to vaccinate all who desired the protection. Then, as we are to receive a fee for the service, he cannot make up his mind to go around telling his patients that they ought to be vaccinated; it looks too much like he were using it as a means of increasing his income. He saw only one way out of the difficulty, and that is to take the matter out of the hands of the general practitioner and make it the duty of the superintendents of health, and make it compulsory.

Dr. Potter, Superintendent of Health for New Hanover county, has been in the habit of getting a large quantity of vaccine virus at intervals through the Secretary of the State Board of Health. He takes his stock of virus and goes to the schools and explains the importance of the measure, and then vaccinates all who are willing. In one school of 200 he vaccinated 150, and all the others had been vaccinated previously. He had very little trouble when once they understood the necessity of it He makes it a point each spring to go around and vaccinate all he can.

Dr. Wood explained to the members how they could at any time procure a fresh and reliable amount of vaccine virus to meet any emergency that might arise.

Dr. H. W. Lewis gave his experience in the matter of attempting to vaccinate the children of the schools. He put up a notice that he would visit the school at a certain date to vaccinate all who desired it, and when he reached the school he found that the pupils

had all taken to the woods. He went to another school and found they had no scholars. He thought the Superintendent of Health was placed in a very embarrassing position. He holds the office of Superintendent in his county. He complained that the salary of the Superintendent was left to the Board of Commissioners, and that the service was worth three or four times what they would allow. He thought the salary ought to be fixed by the Legislature in proportion to the number of inmates in the poor house and the population of the county. The remuneration is so small that it is seldom a competent man can be found willing to accept the office. Let there be evidence of successful vaccination before a pupil may be admitted to the public schools. He thought as Dr. Wood said, that we are raising a rich harvest ready for the reaper. He suggested that the State Board of Health prepare a pamphlet for distribution among the people teaching them the vital importance of vaccination.

Dr. D. C. Parris said that in his county (Orange) where he is the Superintendent of Health, vaccination is going by defanlt. There is practically no vaccination except a case now and then in an applicant for life insurance. He thinks nothing but a compulsory law would bring about the desired end.

Dr. Cheatham had listened with much interest to the subject. Our population is of such a character and our railroads of such extent, affording quick and ready communication with other parts of the country, that we are liable at any time to the introduction of small-pox. Numbers of people are constantly making visits to the northern cities where cases of the disease are frequently occurring and where they are liable to come into contact with it. These people are liable to bring it into our midst. He thinks the Society should take some steps toward having a law enacted on the subject.

The President thought nothing but a disastrous epidemic would awaken the people from their iethargy.

Dr. Parris offered a resolution which was amended by Dr. Roberts to read as follows:

Resolved, That the Board of Health be instructed to memorialize the Legislature of the State of North Carolina in regard to a law of compulsory vaccination.

Dr. Graham thought that the Legislature was apt to look upon anything presented by the medical profession with suspicion, and

thought it would be best to approach them through the Superintendent of Public Instruction.

Dr. Hodges thought a mere appeal would amount to nothing, but that a committee should be appointed to be present when the bill is presented to work it up by direct conversation with the individual members.

Dr. Roberts explained that he had put the resolution in such form that just what to do and how to do it should be left to the discretion of the Board of Health.

Dr. Lewis amended the resolution as follows: That a committee be selected by the Board of Health to go to Raleigh and get through the best law possible on vaccination.

The amendment was adopted.

Election of a New Member.

The election of a new member on the Board of Health to fill the unexpered term of Dr. Baker was declared in order.

Dr. H. W. Lewis, of Jackson, and Dr. W. H. Harrell, of Williamston, were put in nomination. The result of the ballot was in favor of Dr. Harrell, and on motion of Dr. Lewis, the election was made unanimous.

The Conjoint Session was declared adjourned, and the Society was called to order.

Report of Committee on Credentials.

A report of the Committee on Credentials was presented and accepted, and the Society then adjourned.

SECOND DAY—Afternoon Session.

The Society was called to order at 3 o'clock.

A Telegram of Greeting.

The Secretary read a telegram of greeting from the Medical Society of the State of Pennsylvania, which was duly appreciated, and, on motion, the Secretary was instructed to wire in return the fraternal greeting of this Society.

The Secretary said he had received the report of the Chairman of the Section on Practice of Medicine.

On motion, the paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Report of the Committee on Finance.

Dr. Tayloe presented the following report of the Committe on Finance:

Your Committee have examined the Treasurer's accounts and find them correct, as follows:

To balance on hand from last year	$1,564 16
" amount paid out	834 36
Balance on hand	$ 729 80

The Committee recommend an assessment of $2.00 *per capita* for the ensuing year, and that the salary of the Secretary and Treasurer be the same for next year.

D. T. TAYLOE,
M. P. PERRY,
S. D. BOOTH,
Committee on Finance.

On motion the report was adopted.

Report of Committee on Credentials.

The Committee on Credentials made a report, which was adopted.

Excursion to the Hammocks and Reception at the Y. M. C. A. Hall.

Dr. Shepard, for the Committee of Arrangements, announced on the programme for Thursday an excursion to the Hammocks in the afternoon and a general reception at the Y. M. C. A. hall in the evening.

Election of Members on the Board of Medical Examiners.

The Chair announced that the Society was ready to hear nominations to fill two vacancies on the Board of Medical Examiners caused by the expiration of the terms of office of Drs. Purefoy and Payne.

The following names were placed in nomination: Drs. J. M. Baker, H. B. Weaver, W. H. H. Cobb, W. C. Galloway and S. T. Nicholson.

Dr. Cobb expressed his thanks for the nomination, but requested to have his name withdrawn.

It was moved and adopted that each member vote for both vacancies at one time.

Drs. Riddick, Summerell and Tayloe were appointed tellers.

The following was the result of the ballot:

Total number of votes cast 129; necessary to a choice 65. Dr. Baker received 79 votes; Dr. Weaver 75; Dr. Galloway 56, and Dr. Nicholson 43.

Dr. Julian M. Baker, of Tarboro, and Dr. H. B. Weaver, of Asheville, were declared duly elected as members of the Board of Medical Examiners of the State of North Carolina, to serve for six years.

Election of Officers of the Society.

Nominations for President being declared in order, Dr. J. W. McNeill was put in nomination by Dr. Burbank

There being no further nominations, on motion, the Secretary was instructed to cast the vote of the Society for Dr. J. W. McNeill, of Fayetteville.

Dr. McNeill was declared duly elected President for the ensuing year.

The following names were put in nomination for Vice-Presidents: Drs. W. C. Galloway, H. H. Harris, J. M. Hadley, Thomas Hill, S. T. Nicholson, D. McBryde and R. W. Tate.

On motion, it was decided that the four receiving the highest number of votes be declared elected, and that they take rank according to the number of votes received; also that each member be allowed to vote for four candidates on one ballot.

As the result of the election the following were declared elected:

Dr. W. C. Galloway, of Winston, 1st Vice-President; Dr. H. H. Harris, of Wake Forest, 2d Vice-President; Dr. J. M. Hadley, LaGrange, 3d Vice-President; Thomas Hill, Goldsboro, 4th Vice-President.

The following names were put in nomination for Secretary: Drs. R. D. Jewett, J. W. Long, J. A. Hodges and T. M. Jordan.

Drs. Hodges and Jordan both requested that their names be withdrawn.

Dr. Long received 43 votes and Dr. Jewett 68.

Dr. R. D. Jewett, of Wilmington, was declared elected Secretary, and, on motion of Dr. Long, the election was made unanimous.

Dr. M. P. Perry, of Macon, being the only nominee for Treasurer on motion, the Secretary was instructed to cast the vote of the Society for him, and he was declared duly elected.

Report of Committee on Nominations.

The Committee on Nominations made the following report, which was received :

Orator.—Dr. J. A. Hodges.

Essayist.—Dr. J. M. Faison.

Board of Censors.—W. C. McDuffie, T. E. Anderson, W. H. H. Cobb, Sr.

Obituary Committee.—T. F. Wood, J. G. Riddick and H. B. Weaver.

Committee on Publication.—Geo. G. Thomas, T. S. Burbank, Thomas F. Wood, R. D. Jewett.

Delegates to American Medical Association.—C. J. O'Hagan, E. H. Horneday, L. J. Picöt, G. W. Long, B. L. Long, E. C. Laird, W. T. Cheatham, J. M. Baker, T. D. Haigh, Hubert Haywood, J. Howell Way, D. W. Bulluck, S. Westray Battle, S. S. Satchwell, R. L. Payne, Jr., J. Y. Fitzgerald.

Delegates to the Southern Surgical and Gynæcological Association.—D. T. Tayloe, W. J. Love, A. W. Knox.

Delegates to the Virginia State Medical Society.—W. H. Harrell, R. D. Jewett, T. P. Wynn.

Delegates to the South Carolina Medical Society.—D. M. Prince, J. F. Harrell, W. A. Graham.

Delegates to the American Public Health Association.—H. T. Bahnson, John Manning, J. H. Marsh.

Delegates to the British Medical Association and International Congress.—D. G. Colwell, A. D. McDonald, J. W. Jones.

(Signed) J. W. McNeill,
H. H. Harris,
T. S. Burbank,
W. H. Harrell,
E. C. Laird.

Dr. S. S. Satchwell presented a paper entitled Biographical Sketch of Dr. James I. Phillips, Deceased, of Edgecombe County.

On motion, the paper was read by title and referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Time and Place of Next Meeting.

The question was raised as to the time of the meetings of the Society, some of the members thinking it should be held at an earlier date. On motion, it was decided that the matter should be left with the Committee of Arrangements at the place selected for the meeting.

In the selection of a place for the next meeting of the Society Winston-Salem and Raleigh were put in nomination with the choice of the former.

SECOND DAY—Evening Session.

The Society was called to order by the President, who thanked the ladies for their presence in the following happy terms:

"They cheer us on to a higher place of usefulness in our profession. I believe the medical profession has been ever warm in its championship and admiration for true womanhood. When we see women walking uprightly, fulfilling that mission that her Creator manifested and desired she should, she inspires in us an emotion of profound admiration for the beauty and loveliness of her character. Ever since the day when God took the rib from Adam's side and made woman she has been a ministering angel to wipe away the tear of grief and sorrow from man's brow and scatter flowers in the pathway of his life. Indeed, under such circumstances she is the delineation and embodiment of all that is lovely and beautiful. It is painted upon her cheeks in heavenly smiles, flows in her ringlets, charms in her voice, throbs in her breast, moves in her steps, and mingles and shines in the graces of her love. In sorrow, sadness, pleasure, woe and pain she is untiring, unceasing in her devotion to those duties which alone make life worth living. She is oftentimes the physician's main reliance, and by her intuitive kindness and quick perception is the means of saving many poor sufferers from untimely passing to that mysterious beyond, that undiscovered country, from whose bourne no traveller returns."

The essayist, Dr. Oscar McMullan, was then introduced by Dr. Thos. S. Burbank, and read the Annual Essay, entitled The Ideal in Medicine.

The essay received the marked attention and hearty applause of the very large audience.

Dr. J. W. Long was introduced by the President, and delivered the Annual Oration, entitled Character the True Test of the Physician.

Dr. Long's address extended over an hour and a quarter, and he was frequently interrupted by the applause of his audience.

On motion, the thanks of the Society were extended to both the Essayist and the Orator for their able and interesting productions, and the papers were referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Dr. W. H. H. Cobb, a member of the Board of Censors, being compelled to return home, Dr. Herring was appointed to act in his place.

On motion, the Society adjourned.

THIRD DAY—Morning Session.

The Society was called to order at 10 o'clock by the President.

Report of Committee on Credentials.

The Committee on Credentials made a partial report, which was adopted.

Dr. E. C. Laird read a paper on The Therapeutic Value of Mineral Waters. [Referred to the Committee on Publication.]

Dr. R. H. Lewis read a paper entitled A Few Plain Words About Glaucoma.

On motion, the paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Dr. Michael, of Baltimore, read a paper entitled Obstetrical Teaching.

On motion, the paper was referred to the Committee on Publication.

Report of the Committee on the Duffy Prize.

"We, the Committee appointed at the last meeting of the Society at Asheville, to decide as to the merits of essays for the 'Duffy Prize,' beg leave to report that two essays were offered, neither of which are on the subject for which the prize was offered.

"Dr. Duffy was wired, and he says in reply: 'Prize was offered for Treatment of Hæmorrhagic Malarial Fever. Doubtful about other questions. Will write.

"H. H. HARRIS,
"W. J. JONES,
"JOHN M FAISON,
"*Committee.*"

(Since the meeting adjourned the following communication has been received by the Secretary):

"NEW BERNE, N. C., May 18, 1892.

"*Dr. Julian M. Baker, Secretary of the N. C. Medical Society:*

"DEAR SIR:—Your telegram, which was directed to my brother Charles, was received by me after some delay. I have answered by telegram as well as I could in brief, and now supplement by saying that it is my impression that several years ago (I think during the Presidency of Dr. Bahnson) it was suggested that the prize be offered for some subject not so localized as treatment of hæmorrhagic malarial fever would necessarily be. I think I either consented to the suggestion or left it discretionary with Dr. Bahnson or the Committee that year. I have noticed, however, that since that time the transactions or minutes of the Society have shown that the prize was, as originally stated, for treatment of hæmorrhagic malarial fever. That being the general impression, it would not invite competition in other fields, and essays would naturally be withheld that might otherwise be offered. I did not know nor think any other subject than hæmorrhagic malarial fever would be considered in that connection at this time, nor any time without specification. It was my intention to stimulate research in that field. As the money has been paid to the Society, they can do as they please with it, but it would be contrary to my feeling to award it to any other subject unless it was previously published and generally understood that writers were not restricted as to subject.

"Yours, very truly,

"FRANCIS DUFFY."

Dr. A. B. Pierce read a paper on the Treatment of Pneumonia.

Dr. Pierce, in conclusion, called attention to the fact that he laid especial stress upon the specific action of mercury. He thinks all the symptoms will yield if we can get the specific effects in the first six or seven days.

Dr. Holmes does not believe in the universal use of calomel, but thinks it is often a most useful remedy, especially in pneumonia.

On motion, Dr. Pierce's paper was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

Dr. Thos. S. Burbank made an oral report of operation on what was supposed to be an ovarian tumor. After the abdomen was opened the tumor was found firmly bound down to all the adjacent viscera. The womb could not be found. The operation was for exploratory purposes, with the understanding that if thought best the tumor should be removed. It was decided to remove it, and in breaking up the adhesions his hand ran into a cancerous mass that involved the rectum and the adjacent parts. The rectum, which had been ulcerated through in two places, was resected, about five inches being taken away. The gut was then attached to the angle of the median incision to make an artificial anus. The patient was put to bed in complete shock, and died in thirty-six hours. His principal object in bringing the case to the attention of the Society was to show some of the scrapes we get into when we invade the abdominal cavity.

Report of the Committee on the Pittman Prize.

Dr. Burbank, from the Committee on the Pittman Prize, reported that there had been only one paper presented, and this not bearing evidence of sufficient original thought and investigation, or general merit, the Committee suggested that no reward be made.

On motion, the report was adopted.

Installation of Officers.

The President appointed Drs. Bahnson and Pierce to escort the President-elect to the stage.

In tendering the gavel to his successor, Dr. Cheatham returned his heart-felt thanks to the Society for the courtesies and assistance they had extended him, and introduced Dr. J. W. McNeill.

In assuming the Chair President McNeill said he felt assured that the nominee of the Democratic Convention at Raleigh yesterday, after the long contest, does not feel the pride in his heart this morning that he does after being nominated by this dignified and scientific body of the Medical Society of the State of North Carolina. He promised that, with the assistance of the members, when the Society meets again next year we will be one step further in the advancement in the science and practice of medicine.

Appointment of Chairmen of Sections, etc.

The Chair announced the following appointments for the ensuing year:

Chairman of Section on Practice.—Dr. E. M. Summerell.

Chairman of Section on Surgery.—Dr. J. P. Munroe.

Chairman of Section on Obstetrics.—Dr. J. H. Marsh.

Chairman of Section on Gynœcology.—Dr. R. H. Whitehead.

Chairman of Section on Materia Medica.—Dr. Thos. Stamps.

Chairman of Section on Therapeutics.—Dr. C. E. Hilliard.

Chairman of Section on Pathology and Microscopy.—W. T. Pate.

Chairman of Section on State Medicine and Medical Jurisprudence.—S. J. Montague.

Leader of Debate.—Dr. D. T. Tayloe.

Committee on Pittman Prize.—Drs. D. W. Bulluck, H. T. Bahnson, T. D. Haigh.

Committee on Duffy Prize.—Drs. N. B. Herring, D. McBryde, Duncan Smith.

Vote of Thanks.

Dr. Hodges offered a resolution that the thanks of the Society be extended the citizens of Wilmington, and especially the medical profession, for their kindness in entertaining the Medical Society.

The resolution was adopted.

Dr. Bahnson and the Report of the Board of Censors.

Dr. Bahnson, acting temporarily on the Board of Censors, asked the action of the Society on a question relating to the report of the Board on yesterday. One of the gentlemen involved by that report had presented himself and asked for a hearing. He being the only

member of the Board present at the time, he asked the wish of the Society as to whether other members be appointed to act with him, or whether the matter come before the Society.

The motion was made that the matter be brought before the whole Society.

The Chair thought it would be best to refer it to the Board, that they may have time to investigate the charges fully.

After some discussion, the motion to refer to the Society was lost.

A motion to reconsider was carried.

Dr. Hodges thought the case an unusual one, and suggested the appointment of two members to act temporarily with Dr. Bahnson. This is the duty of the Board and just what it was instituted for, and he thought it should be left to it.

Dr. Robinson rose to explain why he was unable to be present sooner, and went on to state the facts in the case which had been acted upon by the Board.

Dr. Hodges, in view of the fact that the gentleman had been suspended on yesterday, objected to his making any statements.

After some further discussion on the matter, Dr. Long asked the ruling of the Chair as to whether we have the right to take the matter out of the hands of the Board of Censors, and the Chair ruled that we have not the right.

Dr. Baker made a motion that two members be appointed to act with Dr. Bahnson, and that the matter be referred to them immediately.

The motion prevailed, and the Chair appointed Drs. A. B. Pierce and W. T. Cheatham.

Dr. J. D. Roberts made a report of a Case of Abnormally Low Temperature.

On motion, the report was referred to the Committee on Publication. [See subsequent number of JOURNAL.]

On motion, the Reporter was voted the usual fee of $25.

Supplementary Report of the Board of Censors.

Dr. Bahnson made the following supplementary report of the Board of Censors:

"The Board of Censors beg leave to report as follows:

"WHEREAS, Dr. M. E. Robinson has appealed for trial before

the Board of Censors on charges of advertising and vending a nostrum for the cure of drunkenness, and

"WHEREAS, The said Dr. M. E. Robinson acknowledges that he has so advertised, and further, that he has entered into a contract with the proprietor of the said nostrum, whereby a certain sum shall be paid to the said proprietor for each patient treated therewith, therefore be it

"*Resolved*, That this Board of Censors declares said charges of unprofessional conduct are fully sustained and recommend that the name of the said Dr. M E. Robinson be dropped from the roll of the Society.

Very respectfully submitted,

H. T. BAHNSON, *Ch'm.*

Dr. Pierce said that Dr. Robinson acknowledges he has done wrong, and that if he is willing to confess his error and renounce his effort in the matter, he is willing to restore him to his former position in the Society.

Dr. Bahnson said that was the consensus of opinion of the whole Society. It is a matter of principle and not of feeling against Dr. Robinson. The Society has nothing to do with the good that may result from Dr. Robinson's treatment, but he is vending a nostrum. It is manifestly in direct violation of every principle and the letter of the Code of Ethics.

A motion was made that the report be received.

With the permission of the Society Dr. Robinson said he would like to state that he knew the remedy, but did not know the constituents thereof. Dr. Bahnson had intimated that he was under contract. He told the Board of Censors that if he had done wrong he was willing to correct his action.

Dr. Cheatham said the Committee had only one duty to perform, namely, to investigate the charges; they had done this and found them true.

A motion to receive the report of the Board was carried.

Dr. Pierce offered a resolution that if Dr. Robinson acknowledged his error and promised to correct it, that he be readmitted to his former standing in the Society.

Dr. Bahnson rose to a point of order. He said the report of the Board of Censors had been received by the Society expelling Dr. Robinson. The expression of Dr. Robinson before the meeting

was radically opposite to that before the Board, as he understood it. He was willing to withdraw the advertisement, but that had already done its harm. He could not avoid treating patients that came to him in answer to his advertisement. He made no promise to the Board that he would not use this nostrum.

Dr. Robinson said that Dr. Bahnson had asked him that question and that he had replied "yes."

Dr. Bahnson explained his point of order by saying that the action of the Society could not be reversed in any such way; that if Dr. Robinson desired to come into the Society, the regular door was open to him as it was to anyone else, and that he could not come in by the back-door.

Dr. Pierce thought that, as Dr. Robinson had confessed his error and was willing to renounce it, he should be restored to his former position in the Society.

Dr. Bahnson called for the ruling of the Chair on his point of order.

The Chair ruled that it is out of order to take any further action in the matter at this time; that Dr. Robinson will have to come back into the Society by the usual way.

Report of the Committee on Credentials.

During the meeting the following names were presented by the Committee on Credentials: Drs. P. A. Nicholson, E. L. Cox, E. G. Goodman, W. H. Atkinson, W. J. Harrell, Russell Bellamy, W. F. Stokes, A. J Patterson, P. R. Hatch, G. L. Clark, R. W. Mills, H. Johnson, W. V. McCanless, C. G. Carter, A. G. Jones, S. P. Wright, F. P. Gates, G. V. Cate, T. S. McMullan, K. A. Blue, W. R. Mayo, W. E. Fitch, C. B. Ingraham, J. B. Shamburger, W. D. McMillan, G. M. Hackler.

Members Present.

The following members were present at the meeting: Drs. J. C. Shepard, F. J. Cooper, Henry T. Bahnson, Joseph Graham, J. J. Mann, W. J. H. Bellamy, S. D. Booth, J. L. Ray, J. F. Harrell, Thomas M. Jordan, J. T. Nicholson, R. F. Lewis, M. H. Futrell, S. T. Nicholson, C. M. Poole, B. L. Long, J. E. Grimsley, C. G. Nichols, Willis Alston, A. McKinnon, J. H. Marsh, T. D. Haigh,

S. J. Montague, A. D. McDonald, F. W. Potter, W. H. Harrell, H. P. Murray, W. H. Bagwell, Julian M. Baker, E. M. Summerell, D. T. Tayloe, J. D. McMillan, Ogden D. King, J. M. O'Kelly, R. C. Councill, J. D. Croom, D. McBryde, J. R. McClelland, K. P. Battle, Jr., W. T. Pate, D M. Prince, S. Westray Battle, G. W. Purefoy, C. E. Hilliard, M. H. Fletcher, H. B. Weaver, W. P. Whittington, D. G Caldwell, R. D. Dickson, M. P. Perry, E. C. Laird, W. W. Lane, J. T. Schonwald, Duncan Smith, D. W. Bulluck, W. C. Galloway, L. M. Archey, W. H. Whitehead, R. D. Jewett, W. H. H. Cobb, W. J. Jones, Albert Anderson, N. B. Herring, J. D. Roberts, J. C. Grady, R. W. Tate, S. S. Satchwell, W. L. Crouse, W. A. Ingram, H. H. Harris, D. C. Parris, J. P. Munroe, J. W. Long, A. B. Pierce, H. W. Lewis, J. McDe Armon, Thomas F. Wood, W. J. Love, E. H. Hornaday, T. S. Burbank, E. A. Anderson, W. L. Best, T. P. Wynn, A. Holmes, J. M. Hadley, J. W. McNeill, M. Bolton, F. C. James, Thomas Stamps, Duncan Sinclair, R. W. Thomas, Thomas Hill, W. V. McCanless, J. A. Hodges, G. J. Robinson, W. J. Harrell, Geo. G. Thomas, W. T. Cheatham, G. F. Lucas, R. W. Mills, J. M. Manning, R. H. Whitehead, H. T. Chapin, J. F Sandeford, M. F. Fox, J. T. Rieves, B. F. McMillan, J. F. McKoy, W. S. Anderson, J. L. Nicholson, J. A. Faison, G. L. Wimberly, J. A. Stevens, E. Porter, J. P. Fairrington, H. H Whitaker, J. E. Ashcraft, W. D. McMillan, J. G. Blount, L. J. Picöt, J. M. Faison, G. W. Long, R. L. Payne, Jr., W. K. Anders, R. H. Lewis, O. McMullan.

Adjournment.

On motion, the Society adjourned to meet in Winston.

THE TRANSACTIONS OF THE WILMINGTON MEETING.—We have given up nearly all of our space to the meeting of the Medical Society, that our readers may have the entire work of the session before them. The Papers will appear in successive numbers of the JOURNAL until all that are passed upon by the Publication Committee are printed.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF NORTH CAROLINA—SESSION HELD IN WILMINGTON MAY 16TH, 17TH, 18TH, 19TH, 20TH, 1892.

WILMINGTON, N. C., May 16, 1892.

The Board of Medical Examiners met at the rooms of the Orton House, at 9 o'clock, a. m., Monday, May 16th, 1892.

There were present Drs. W. H. Whitehead, President; George Gillett Thomas, Robt. Lee Payne, Jr., George W. Long, L. J. Picôt, Secretary.

Drs. Long and Thomas were appointed as the Committee on Finance. The bills and vouchers of the Secretary were approved.

On motion of Dr. Thomas it was ordered that Dr. Picôt be reimbursed his expenses as a witness to Alamance Court in the case of J. T. F. Cummings vs. Huffman and Gerringer, executors.

Drs Young and Purefoy came in on the afternoon train and reported for duty.

The first examination was held by Dr. Thomas, on Chemistry, at the building of the Young Men's Christian Association. Two examinations were held daily, and on Wednesday three, one of them, on Materia Medica and Therapeutics, at night.

Dr W C. Kiser, of Reepsville, was granted an oral examination in his bed, on account of an attack of sciatica.

The examinations were written, as heretofore, and a standard of 80 per cent. required There were 69 applicants, and the following were granted license :

Dr. Robert H Stancell, Margarettesville.
" S L. Martin, Leaksville.
" W. B. Bullock, Franklinton.
" L. A Crowell, Lincolnton.
" H. J. Thomas, Winston.
" J. E. Dellinger (col.), Lowesville.
" A J. Crowell, Cobwin's Store.
" E. A. Rainey, Germanton.
" C. M. Jones, Tarborough.
" R W. Smith, Hertford.
" H. L. Baird, Asheville.
" H. S. Williams, "
" J. Thomas Wright, Salisbury.

Dr. N. B. Houser (col.), Charlotte.
" William R. Ballou, New York City.
" Robert L Caviness, Coleridge.
" John W. Jones (col.), Warrenton.
" Joshua Tayloe, Washington.
" J. B. Griggs, Elizabeth City.
" T. A. Boaz, Price.
" James T. Rieves, Julian.
" W. C. Ashworth, Ashboro.
" C. J. Oliveros, Asheville.
" E. J. Buchanan, Salisbury.
" W C. Folger, Dobson.
" A. H. Harriss, Wilmington.
" Andrew J. Koontz, Roaring River.
" Claude A Adams, Carry.
" Henry M. Long, Statesville.
" John C. Twitty, Rutherfordton.
" Charles S. Summers, Winston.
" T V. Roberson, Weaverville.
" S E Pennington, Sturgill's.
" Frank Roberts, Marshall.
" S C. McGilvra, Asheville.
" William Bowen, Knoxville, Tenn.
" M. E Gattis, Raleigh.
" J C Rodman, Washington.
" J. W. Costen, Sunbury.
" M. S. Stevens, Enochville.
" John G. Blount, Washington.
" John H. Brunett, Wadesboro.
" S. L. Perkins, Solitude.
" John Bynum, Winston.
" H. R. Hoover, Elm City.

Total 45.

* Dr. E. J. Buchanan, having made the highest grade on all the branches, is entitled to the Appleton Prize.

During the interval between the meetings of the Board in 1891 and 1892 temporary licenses were granted to the following named persons :

Dr. N. B Houser.
" S. W. Jones.
" A. J. Koonth.
" W. C. Folger.
" M. E. Gattis.
" H. L. Baird.
" W. A. Dees.
" E. L. Corbell.
" William L. Lassiter.
" J. B. Griggs.
" L. G Frazier.
" H. J. Thomas.
" J. W. Jones.
" John Brunett.
" M. L. Stevens.
" LeRoy Long.
" C. S. Summers.
" J. T. Rieves.
" R. A. Moore.
" T. L. Douglass.
" H. R. Hoover.
" J. F. Powell.
" C. J. Oliveros.
" S. C. McGilvra.
" —— McDonnell.

The fees were turned over to the Treasurer by the Examiners granting the above licenses.

These temporary licenses expired on Monday morning, May 16th, and the holders who failed to secure permanent licenses, or a renewal of temporary license, under the rules, are liable to indictment.

The terms of service of Drs. George W. Purefoy and Robert Lee Payne, Jr., having expired, Dr. H. B. Weaver, of Asheville, and Dr. Julien M. Baker, of Tarborough, were elected to fill the vacancies.

After a night's session, lasting until 3 a. m., Saturday, May 21st, the Board adjourned.

W. H. WHITEHEAD, M.D., *President.*
L. J. PICÔT, M.D., *Secretary.*

READING NOTICES.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning.
For catalogue, write Rochester Lamp Co. New York.

A NEW, SAFE METHOD OF ADMINISTERING TOXIC MEDICAMENTS.—A new departure in therapeutical posology marks a recent enterprise of Parke, Davis & Co., which is in the interests of progress, economy and exactness.

The increased knowledge resulting from research in the fields of botany, chemistry, physiology, pharmacy and materia medica has created a demand on the part of the medical profession for the essential or active principles of drugs in preference to the more cumbersome, less definite pharmaceutical preparations which custom and authority have so long sanctioned.

Not a few alkaloidal principles of drugs have been isolated, and are now frequently prescribed. The conservative element of the profession have, however, in view of the toxicity of certain isolated medicinal principles, and the acknowledged variety of strength and activity of products of this character of different manufacture, been loath to employ them when medicated.

The doses sometimes being fractions of a thousandth or a hundredth, it is not possible for the physician to always bear them in mind, and in prescribing he is often in doubt as to what constitutes the proper therapeutical dose, and what the dangerous toxic one.

Dr. E. Trouette, in a paper read before the Paris Academy of Medicine, and published in the *Revue de Thérapeutique*, entitled "Duodecimal Doses of Toxic Medicaments," proposes a method of obviating the difficulties hitherto preventing the general use of many valuable medicinal principles. The plan he proposes is a new method of posology based on the rational division into twelve parts of the maximum dose which may be given to an adult in twenty-four hours.

The advantages claimed for this method are, first, accidental poisoning need no longer be feared. Second, dangerous medicaments may from the outset be given in efficient dose without the least risk.

Parke, Davis & Co. have prepared diurnules and Diurnal Tablet Triturates of a large number of Toxic Medicaments, and will afford the profession full information concerning this new method of posology with reprint of Dr. Trouette's article.

NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D., } Editors.

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ORIGINAL COMMUNICATIONS.

A CASE OF PELVIC CONTRACTION—MOTHER AND CHILD BOTH SAVED BY A TIMELY RESORT TO LAPARO-HYSTEROTOMY.

By Cornelius Kollock, M.D., Cheraw, S. C.

On the 20th of March, 1892, I was called to Mrs. A. C. L., aged 28 years; general health had always been apparently good. The patient, however, had a severe pelvic contraction, which must have been consequent upon some disordered condition of the bony structure of the pelvis. This was the third time this woman had been pregnant. Her first labor was on the 7th day of September, 1885, the second on the 12th of July, 1887, and the third on the 20th of March, 1892. In the first and second labors, the attending physicians finding the pelvic contractions so great that they could not effect a delivery of the fetus after craniotomy, they were compelled

to resort to embryotomy. In both the first and second accouchements, the parts were greatly mangled and lacerated. After the second labor the patient came near losing her life. In a thorough examination by the touch, and with the pelvimeter, I found the true conjugate diameter to measure a fraction less than one inch and a quarter. I declined to attempt embryotomy, for I felt assured that in the small space in which the work must be done, the soft parts, perhaps including the bladder and intestines, must be so mangled and lacerated as to endanger the life of the patient as much, if not more, than the operation of hysterotomy. The attending physicians thought the contraction in this, the third accouchement, was greater than in the first or second. When hysterotomy was proposed, the patient and her husband readily consented. The woman was in a good condition to undergo a severe operation. She had been in labor a little less than six hours, and the contractions of the uterus had not been very strong, and there had been no manipulations of the parts The bowels had been emptied twice in the last twenty-four hours, and the water was drawn with a catheter. Every aseptic and antiseptic measure was fully carried out, about the patient's person, about her bed, and also about the persons who assisted in the operation. The vagina was washed out with a disinfectant fluid, and the abdomen thoroughly cleansed with hot water and soap, and then freely bathed with a solution of bichloride of mercury, 1 to 2,000. Sanger's method, known as the new and improved Cæsarean section, was the one decided upon in this case. An incision of eight inches was made in the median line below the umbilicus. This brought the uterus into view. To protect the abdominal cavity, the cervix was surrounded with a thin sheet of India rubber moistened with a 5 per cent. solution of carbolic acid. The cervix was also constricted with Esmarch's elastic tube. To open the cavity of the uterus, a vertical incision of six inches was made in its anterior wall about its middle third, in order to avoid the fundus and cervix. The membrane was now ruptured, and the child was brought out by the feet, the head being low down in the cavity. It is somewhat remarkable that the child was not asphyxiated, and that it cried vigorously as soon as atmospheric air reached it; when the uterus was contracted the tube was removed and the ruptured arteries were secured. The incision in the uterus was now closed by twenty interrupted sutures, twelve

deep and eight superficial. The sutures were introduced so as to include the peritoneal and muscular coats, avoiding the mucous. The sutures were applied in the manner of Lembert's intestinal sutures, so as to welt in the peritoneum, thus securing a speedy union by maintaining the serous surfaces in contact. These sutures in the uterus were all of carbolized silk. The cat-gut is not to be depended upon, for when they become moistened they stretch, and sometimes the knots become untied. The whole abdominal cavity was now thoroughly washed out with hot sterilized water. No drainage was used, as there could be no leakage after the thorough closure of the incision of the uterine walls. The external incision in the abdominal walls was closed by silver wire.

Feeling it to be a duty to this brave woman to save her from suffering and the risk of her own life, that must attend upon another pregnancy, and knowing that the removal of the ovaries would not lessen her chance of recovery, I did Batty's operation. The ovaries were in a perfectly healthy condition, and would probably sooner or later cause another conception. I do not remember an operation of as much magnitude as this that did as well. The temperature was never above 99, and the pulse never above 90.

Since the recent advances in gynecology and in abdominal surgery, the question arises, Are we justified in ending a difficult and protracted labor by resorting to embryotomy or craniotomy? These operations always cause the death of the child, and sometimes they prove fatal to the mother. The moral question is often tided over by physicians, when they say they did not resort to craniotomy till they were satisfied the child was dead; but this is rather dodging the question. They, as it were, let the fetus die, when there was a possibility of saving it, in order that they may be able to say they did not kill it. Both embryotomy and craniotomy are often fatal to the mother, for the contusions and lacerations of the vagina and adjacent tissues, particularly when the contraction is very great, are often frightful. This we must admit is, in a measure, due to the condition of the patient when the operation is performed. As a general rule the operation is done as a last resort, after a long and painful labor, when the patient's strength is exhausted, and the parts more or less contused by repeated efforts to turn the fetus or deliver with forceps. It must

also be borne in mind that exhaustion of the system favors attacks of peritonitis and crural phlebitis; sepsis has also much to do with these sequelæ. Then let every physician bear in mind the momentous fact that in every case of labor there are two lives at stake, and that it is his duty to save both if possible. When there is reason to suspect the presence of a pelvic obstruction there should be a careful and thorough exploration of the pelvic region, ascertaining by the touch and pelvimeter the nature and extent of the obstruction, not by experimental trials with forceps and attempts at turning. Finding the pelvic contraction to be so great that the delivery of a living child is utterly impossible, what is the duty of the attending physician? to wait till the fetus dies, and after the woman's strength is exhausted to mutilate her by doing embryotomy or craniotomy, thus endangering her life? We cannot conscientiously accept this position. In some cases the pelvic obstruction is so great that craniotomy cannot be done with safety to the mother.

In the case reported in this paper the conjugate diameter was less than an inch and a quarter, and the uterus was high up in the cavity. To have attempted embryotomy or craniotomy in this case, would have been a criminal act; from the knowledge of the first and second labors either of these operations must surely cause the death of the fetus, and in all probability that of the mother. Only six hours having elapsed since the labor commenced, the woman's strength was not exhausted, and having been spared the long continued action of the uterine muscles, which, as in contusion of the parts, tends to excite peritonitis, and prevents union by first intention, she was in a proper condition to stand laparo-hysterotomy.

Results recently obtained by the improved Cæsarean section are very encouraging. Out of 149 operations on the continent of Europe 108 women and 136 children have been saved. In Germany the results are better than in any other country, for there the greatest degree of care has been exercised and a most rigid adherence to the technique of the operation. Out of 80 operations in Germany there were 12 deaths. Leopold, of Dresden, in 17 operations had 3 deaths. In 18 operations in Austria 12 women and 15 children were saved. In 29 operations by Zweifel there was one death. Schauta has done the Cæsarean operation 15 times without a single death.

In America the results of the operations have not been equal to those of our brethren across the water. Why any difference in the operation we are unable to say, for the American surgeons have, in pelvic and abdominal surgery, compared favorably with those of any country. It cannot be that they were ever less careful or less rigid in their adherence to the technique of the operation. However, in the past three or four years, there has been in the United States a great change for the better in the results of this operation. In the hospitals of our cities the fatality is much less than it was a few years ago. Recently of 18 operations done in Louisiana 14 were saved. In 8 operations in Ohio 6 were successful. In December, 1891, Dr. Charles Jewett, at the Long Island College Hospital, did Sanger's improved Cæsarean operation twice successfully, saving both mothers and both children. Dr. Joseph Price, of Philadelphia, one of the most skilful and successful surgeons in our country, has done the Cæsarean operation successfully a number of times. Dr. Price's operations were mostly done according to Porro's method. There are some who prefer this method, while others adopt the one known as Sanger's improved Cæsarean section. In estimating the comparative advantages of the operation, it is difficult to say to which the preference should be accorded.

According to the statistics mentioned the mortality in laparo hysterotomy is certainly not greater, if as great, as that of craniotomy and embryotomy. In the latter operations there is a positive certainty of one death—perhaps two. In the Cæsarean operation, if done in time and in a proper manner, the hope of saving the child is as great as it is in a natural labor, even greater than when the head of the fetus has been impacted in the pelvic strait for a long time, and then delivered with forceps. It is my honest conviction that if all cases of pelvic contraction could be attended to in time, before the patient's strength is exhausted, and the soft parts so mangled and contused as to set up inflammatory action, and the operation properly performed, 80 or 90 per cent. could be saved. The fetus, which is in no way responsible for the position it occupies, has surely some rights which it is incumbent upon us to consider; and it demands of us some effort for its protection. Then let craniotomy be relegated to the past, and its place be taken by a method more humane and more in accord with science. If the advance in gynecology and surgery continues for another

decade, as it has for the past twenty years, we may hope the happy period is near at hand when craniotomy, or embryotomy, will be performed as rarely as the Cæsarean section was forty years ago.

In 149 operations 108 women and 136 children were saved; a preservation of 244 lives. If craniotomy had been done in these cases 149 children would have been destroyed, and in all probability 20 or 25 women. In estimating the results of the Cæsarean section in contracted pelvis no one can resist the conviction of the operation being not only justifiable, but imperatively demanded.

As it is our business to save life, and in every obstetric case there being two, sometimes three lives at stake, how can we reconcile it to our conscience to stand by for hours, perhaps days, waiting for the death of an innocent, helpless fetus, and then subject the mother, in an exhausted condition, with a tendency to peritonitis and crural phlebitis, to a savage operation, seriously imperiling her own life.

Let the "slaughter of innocents" cease!

National Sanitarium for the Treatment of Pulmonary Phthisis.—Hon. Jacob H. Gallinger, of New Hampshire, has sent us his speech in the Senate on the above subject. This speech shows what people are thinking about, and that sanitaria are going to be tried for the isolation and treatment of consumptives. We trust that his speech will not induce the general government to go into this business; if it does, then let it go a little further and establish a "crumpet and muffin baking and punctual delivery society" for the relief of indigent dyspeptics. If the government chooses to try the experiment of separating and treating consumptives, let it establish a sanitarium for those of the Army and Navy who are victims, and not undertake any more paternal nurseries for the sick and for political doctors.

HYPERTROPHY OF THE THIRD OR PHARYNGEAL TONSIL—ADENOID VEGETATIONS IN THE NASO-PHARYNX, IN CHILDREN.

By K. P. Battle, M.D., Surgeon for Diseases of the Eye, Ear, Throat and Nose to St. John's Hospital, Raleigh, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

It is not my purpose to attempt an exhaustive essay on this subject, but to give a résumé of the more important points of what seems to me to be our knowledge of it at the present time, and with special reference to its practical aspects. I desire, without claiming any originality, to call attention to an affection which is to a great extent neglected among us, and which, though not so common as in more northern climates and in the unhygienic conditions found in the larger cities, is still not so rare as has been supposed. It is present and doing harm in many cases when we may not suspect it, and is usually recognized only when in so aggravated a form that it cannot be overlooked.

Anatomical and histological descriptions of the normal tissue had been given before, but Luschka's writings in 1862 and later attracted so much attention that it is frequently called Luschka's tonsil. Meyer, of Copenhagen, in 1868 published an elaborate paper on "Adenoid Vegetations in the Naso-Pharyngeal Cavity." This was the first important contribution from a clinical point of view, and has become a classic. He was followed in due time by a constantly increasing number of writers in the same field, abroad and in the United States. We are indebted to Löwenburg, Guye, Fränkel, Tornwaldt, Woakes, Roe, Bosworth, Hooper, Cohen, Gottstein, Delavan, and a host of others too numerous to mention. I think it not necessary to be more exact in giving the credit due to different authors for the statements I make in a paper of this kind.

There is a lymphatic ring of tissue, situated in the mucous membrane and under it, between the mouth and nose above and the œsophagus and trachea below, the essential elements of which are closed lymph follicles, numerous separate lymph corpuscles outside

of these, and lymphatic vessels, all embedded in more or less connective tissue, and richly supplied with blood-vessels. These follicles have the same structure as the solitary glandules of the small intestines, having a thin capsule and very delicate trabeculæ of connective tissue fibers running through the interior, forming interspaces partly filled with lymph corpuscles. This is known as lymphoid tissue, and is characteristic of lymphatic glandular tissue all over the body. In the mucous membrane in the region referred to are also found acinous glands provided with secreting cells and ducts for supplying mucus to the surface. These two kinds of tissue are, in the parts spoken of, more or less intermingled but not equally distributed. They are grouped in different places, and form, between the pillars of the fauces, the distinct masses well-known as the faucial tonsils; on the vault, sides (as far forward as the openings of the Eustachian tubes) and posterior wall of the upper pharynx, they form the more flattened and diffuse collection known as the pharyngeal tonsil; and on the surface of the base of the tongue a similar arrangement is found called the lingual tonsil. In other parts these structures are more scattered and comparatively few and have been called the discrete tonsil.

I may say here, in passing, that there is some of this lymphoid tissue in the larynx, and especially just below the glottis, and that Bosworth has recently made the interesting suggestion that probably catarrhal croup may be explained by the enlargement of that tissue. He has treated this form of croup with very large doses of the syrup of the iodide of iron (five-drop doses every hour in a child of six months, and fifteen drops every hour in one of four and a half years, for four or five hours), and thinks the drug was the cause of the cure which followed. But to resume: These tonsils are all of the same nature and function and are subject to the same diseases, though not to the same degree. For instance, acute inflammation of the faucial tonsils is common, of the pharyngeal it is rare. In hypertrophy it is the lymphoid tissue which is particularly at fault. It is essentially a lymphatic hyperplasia, and this tissue then predominates to such an extent that the name "adenoid," as indicating true glandular tissue, has been denied to it by some, the terms "lymphatism" and "lymphatic hypertrophy" being preferred.

What is the function of these structures? It is not yet definitely

settled, but probably three actions may be assigned to them: (1) The formation of blood, owing to their production of leucocytes in common with other lymphatic glands. (2) The protection of the body, to a certain, though limited extent, from dangerous invading micro-organisms in food and air by the destructive action upon them of great numbers of wandering phagocytes which they are known to contain, according to the theory of Metschnikoff and Killian. (3) The furnishing of a lubricating secretion to aid in deglutition by the muciparous glands which form a part of their structure.

But we are now concerned especially with the pharyngeal or third tonsil. This mixture of glandular and lymphoid tissue is thickest over the vault and posterior wall, a quarter of an inch or less in depth, and is here so arranged that the surface is thrown into irregular folds and furrows, mainly longitudinal It becomes thinner and disappears as a distinct mass of tissue as we come down into the lower pharynx below the level of the palate. In the lower part of this tonsil, in the middle line, is found, in some cases, an opening about the size of a pin's head leading upward into a small sac in the mucous membane, which may be as large as three-quarters of an inch long and a quarter wide. This is the so called pharyngeal bursa of Luschka and Tornwaldt. Though not always present, it was regarded by them and their followers as a normal condition, while others looked upon it as not a true bursa, but a cavity occasionally formed by the adhesion of the folds bordering on a deep median fissure in that region. It is sometimes the seat of disease, and then this may be the principal pathological change in a naso-pharyngeal catarrh. I have seen a very pretty case of distention of the little cavity with pus. But the discussion of this affection is outside of our subject, for in a case of adenoid vegetations the presence or absence of a so-called bursa, whether diseased or not, may be ignored as insignificant.

This description of the third tonsil applies to children. At about the age of puberty the lymphatic part of it generally begins to atrophy, in common with similar tissue elsewhere in the throat, and in the adult, in the normal condition, the soft parts are usually seen to be thinner and smoother than before. The tonsil is frequently hypertrophied in children, and this is the affection which we have now to consider.

Causes—It is essentially a disease of childhood. Bosworth regards the thickened condition found in the vault of the pharynx of adults in the ordinary post-nasal catarrh to be, in many instances, of the same nature, but I do not propose to pursue the subject in that direction. It frequently begins in infancy and in many cases seems to be hereditary. It is very commonly found in these children of a lymphatic temperament who are disposed to glandular enlargements elsewhere, whether scrofulous or not. It is often seen in truly scrofulous children, but is by no means confined to them. It may be found in children who are otherwise apparently in perfect health—among the rich as well as the poor. A tendency to hypertrophy may be the result of repeated cold, even in healthy children, but especially in those who lack vigor of constitution from any cause.

Pathology.—This, as has been stated, is essentially a hyperplasia of the lymphoid tissue normally present, but the connective tissue is also increased in varying degrees. The first, as a rule, predominates, and then the growths are rather soft and pulpy. When the connective tissue is in greater proportion they become denser and tougher, but this is less common. The muciparous glands also are increased in size and their excessive secretion is added to by the deepened fissures between the hypertrophied folds and ridges taking on for the time the function of mucus-forming glands.

The shape of the growths is usually more than an exaggeration of the furrowed condition normally found in children. The folds are greatly enlarged, and there are frequently many finger-like projections from the surface, making it lobulated and extremely irregular. In the denser varieties the swelling is apt to be less uneven. Their size varies. They are sometimes so small as to give rise to no symptoms, and again are so large as to fill the upper pharynx more or less completely. They do not, however, grow indefinitely, as do polypi, resembling in this respect the changes seen in hypertrophy of the faucial tonsils. As in the case of the normal tissue, the hypertrophy has a tendency to stop and the tumor to shrink at puberty, though the effect of this is no doubt increased by the natural enlargement of the bony parts, as the body becomes more developed at that period.

Symptoms.—When the case is an aggravated one, these are characteristic and well marked. Nasal respiration, though rarely

impossible for short periods, is difficult and tiresome, and mouth-breathing is more or less constant day and night, labored breathing in sleep and snoring being often distressing to the parents as well as the child. The passage of air through the nose being interfered with, the sense of smell is impaired. For the same cause—want of proper respiration—there is a lack of the normal muscular activity and vigorous life, and a deficient oxygenation of the blood, and the general health suffers. The child is more liable to disease of the throat and lungs. Sometimes there is an improper development of the chest and a pigeon-breasted condition independently of any rickety constitution.

The voice has a muffled or dead character, somewhat like that of a bad case of acute rhinitis.

Profuse secretion is common, and it may be forced forward instead of passing downward, so that in young children there may be the appearance of a chronic bad cold when the trouble is really in the vault of the pharynx. This mistake is frequently made and I insist upon it strongly. The secretion is in other cases, however, not a marked feature.

The physiognomy in the severe cases is characteristic. There is a broadening and flattening of the parts about the bridge of the nose and an open mouth, giving a vacant and stupid expression.

There is always more or less deafness, sometimes extreme, and suppuration of the middle ear may be a complication.

In lesser degrees of the affection the symptoms vary in like proportion, and there are cases in which, though there is some degree of hypertrophy, they are so slight that they may be disregarded; but they should be watched. It is particularly important to note the effect of these hypertrophies on the ear. Speaking now of all degrees of severity of the disease, the following statements may be made:

1. The great majority of them have ear complications.

2. The great majority of ear troubles in children, certainly of the more or less chronic ones, have their cause in vegetations at the vault of the pharynx.

3. Very many cases of deafness in adults are the result of pharyngeal adenoids in early life.

4. Impairment of hearing may be the only symptom of their presence.

The last was lately pointed out by Woods, of Baltimore, and was confirmed in a recent case in our practice in which the removal of the growths seemed to materially aid the aural treatment in a complete cure. In all cases of deafness in children they should be looked for.

The explanation of the involvement of the ears varies according to the size of the adenoids present. Whatever cause acts so as to prevent the proper opening of the Eustachial orifice for the frequent admission of air to the middle ear will result in the rarefaction of the air in that chamber by absorption, consequent depression and undue stretching of the membrana tympani and other changes, seriously impairing the function of the ear. This may be brought about by direct pressure of the growths on the mouths of the tubes, or by their presence in less degree, but still sufficient to cause interference with the muscular movements concerned in opening them. Again, the obstruction to the free passage of air through the upper pharynx may cause, as suggested by Bosworth, stagnation and a tendency to rarefaction of the air in the neighborhood of the orifices, and consequent hyperæmia and swelling of their lips and the walls of the tubes. Perhaps in some cases there is a direct extension of catarrhal inflammation from the pharynx down the tubes to the ears. Certainly acute inflammation and suppuration of the tympanum sometimes supervenes.

The symptoms vary in severity at different times, being often increased during damp weather, and always when the child takes cold. We should examine the upper pharynx in children who have frequent symptoms of rhinitis If the vegetations are found, the cause of the tendency to colds will often be found at the same time.

Hypertrophy of the faucial tonsils will often be seen in connection with that of the pharyngeal, but not always. We may have either without the other.

Diagnosis.—This can be definitely made by the use of the rhinoscopic mirror, or by the forefinger. The mirror can seldom be used in young children, and in such it is not difficult to pass the finger up behind the palate and feel for the growths. They would be felt by its tip and back, and the sensation is commonly much as if the vault were occupied by a mass of earthworms. If they are prominent a mistake could hardly be made. If less so, a few trials

soon give the educated touch which will distinguish the unnatural softness and yielding character of the membrane. Of course we have to guard against doing injury to the soft palate. The nail should be short and blunt, unless the plan of using it as a natural operating instrument is adopted. The finger is often streaked with blood when withdrawn, but that is of no consequence, for a little bleeding on the slightest provocation is one of the characteristics of these growths.

Treatment.—The only treatment of any value is removal by surgical means. I do not mean to say that an operation should be done in all cases whenever any degree of hypertrophy is shown to be present. Personally I am always conservative on questions of operating, and am inclined to avoid it when the same end can be attained by other means. Nor is it forgotten that, as has been stated, the vegetations, as a rule, have a tendency to diminish at a certain age, but I wish to emphasize the point that whenever there is reason to believe that they are doing damage, we should not hesitate to operate. While we are waiting for the child to outgrow them irreparable damage may be done. A pale, inert and flabby-muscled child may, as the result of an operation, develop into a ruddy, strong and vigorous romp. A growing child needs the full and free use of his lungs and natural air-passages, and if he does not have it, it ought to be given to him. The operation can usually be done with such comparative ease, satisfaction and safety, that there is no excuse for neglecting it. In the worst cases there will be no difficulty in deciding, but it is also needed whenever there is any obstruction at all to easy breathing through the nose by day or night, when there is a chronic excessive secretion and troublesome hawking, when the voice is affected, and, above all, when there is impairment of hearing. When the last is caused by vegetations their removal and the systematic inflation of the ear by Politzer's bag may prevent a deafness which, if neglected, might last through life.

As intimated above, the finger-nail has been used successfully for taking away these growths, but it is not, I think, to be recommended. The different kinds and modifications of instruments that have been devised are perhaps as numerous as those who have written on the subject—some for use through the nose, some through the mouth. Ring knives, snares, forceps, opening laterally

and antero-posteriorly for crushing and for cutting, and curettes, and many varieties of all of them. Forceps have been most generally used, and I show a sample of one of the best, which is Hooper's modification of Löwenburg's. But by far the best instrument for ordinary use is the improved Gottstein's curette, which I have here, lately brought prominently before the profession by Dr. Frank E. Miller, of New York. The shaft curves slightly downward toward the end and terminates upward in a widely fenestrated, somewhat triangular curette of peculiar shape. This is set on at about a right angle and has a nearly straight cutting edge at the upper side, the edge being directed downward, and with a backward inclination, toward the middle of the triangle. It is introduced sideways and then turned upward along the posterior surface of the palate and the handle depressed so that the blade may be pushed upward and forward as far as possible, that is, to the junction of the septum with the vault. Pressure backward and downward is now quickly made and the growth is pressed into the opening of the curette and cut off. There is usually little bleeding and it always soon stops.

The mouth-gag will be needed in some cases, but this may often be dispensed with and the tongue depressor used alone. The instrument is sometimes a little difficult to introduce, but once behind the palate, the rest is easy. There is no trouble at all about removing it. It cuts more easily through the softer kinds of hypertrophy, but is successful in all. It is important to have an assistant hold the patient's hands at times, but if this is done and the head is measurably controlled, it is impossible to do damage with it. The uvula, soft palate, mouths of the Eustachian tubes and septum simply cannot be injured—and this cannot be said of any form of forceps. Moreover, the blade does not project beyond the blunt sides on which it is supported, so that it is impossible to cut off too much tissue and do violence to the deeper structures of the parts from which the adenoids are cut.

Some operators recommend that an anæsthetic be given and that an attempt be made to eradicate all the hypertrophied tissue wherever found. I believe, with others, that an anæsthetic is not necessary, certainly with Gottstein's curette, and that with that instrument all the tissue can be removed that need be. It is impracticable to remove all such tissue from all parts of the naso-pharynx

with any means, and if it were otherwise it would not be necessary. Enough may be accomplished at times by one introduction of this curette at one sitting; if not, it may be repeated, at the same operation or afterwards. We may be governed by the evidence of the mirror or finger, or by the effect produced on the symptoms. The after-treatment may be nothing at all or a simple alkaline antiseptic spray may be prescribed.

In conclusion, the advantages of this curette may be summed up as follows:

1. The comparative ease with which it can be used.
2. The impossibility of doing any injury with it.
3. The quickness of its action and the shortness of the operation, combined with sufficient thoroughness.
4. No anæsthetic is required.

Dr. Caleb Winslow.—There will appear in the next number of the Journal a biographical sketch of Dr. Caleb Winslow, with a portrait. Dr. Winslow is the last living representative of the First Board of Medical Examiners in North Carolina, which convened in Raleigh on the 6th May, 1859. It is a great pleasure to put on record the quiet deeds of these pioneers of our profession, who, with wise forethought, built the foundation upon which we are now working so prosperously as a united profession. Dr. Winslow was one of the most successful surgeons our State has produced, and we take pleasure in setting this forth in the permanent form of a biographical sketch, which will be accompanied with a striking photogravure by Gutekunst. Dr. Winslow has retired from the practice of medicine, and is now living in Baltmore, where he has resided ever since the war.

RECTAL PATHOLOGY.

By W. J. Jones, M.D., Goldsboro, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

In the Section of Surgery I have been given space for some reflections, with clinical data, embraced in the province of

RECTAL PATHOLOGY.

The recognition of the dictum of Solomon, "that there is nothing new under the sun," and realizing that the vanguard of scientific research have penetrated and exploited nature's arcana to evolve germinal ideas which, when elaborated and materialized, have ever given new impulse and vigorous growth to scientific medicine, I am acutely conscious of my inability to do more than simply to invite your attention to, and emphasize the importance of, more thorough cultivation of this field of medical inquiry, which, I regret to say, has been lying comparatively fallow—when we consider its importance as a physiological factor in the complex problem of digestion and the amount of suffering when diseased. The rectum is perhaps more frequently diseased than any other portion of the alimentary canal or its correlated digestive viscera

From the great number of affections to which this organ is subject I have selected one for your consideration with which you are clinically very familiar, but perhaps deem as quite insignificant. It is a disease prevalent among the barbaric as well as civilized peoples, and no condition of humanity, land or clime can claim immunity. It finds its victims among the devotees of science, literature and art, as among the army of hard toiling bread-winners—the latter not infrequently reduced to absolute penury—becoming pensioners upon Christian charity because of this infirmity. Yes, the sceptered monarch and humble peasant share alike the inevitable tortures of this disease—*Hemorrhoids.*

In professional endeavor to alleviate the sufferings of those afflicted with this very common malady by palliative and surgical

resources, I have been most favorably impressed with its amenability to operative interference, and hence the presentation of this paper to the Society.

Upon the most reliable statistical authority in this department of medicine, Dr. William Allingham, England, it has been discovered that of four thousand consecutive cases of rectal disease admitted into St. Mark's Hospital one-fifth were hemorrhoids.

Before investigating the pathological condition constituting piles and giving the different procedures in vogue for relief, I trust it will not be considered the work of supererogation if, for the sake of a clearer comprehension of the subject, I should give a brief résumé of some anatomical factors that are chiefly implicated in the production of these *Tumors*.

In the first place, we must regard this abnormal condition as attributable to undue tension in the vascular supply of the rectum and contiguous tissues. When dilatation of the arteries, veins or capillaries takes place from immediate or remote obstruction with the subsequent connective tissue development, we have lesion of the rectum known as hemorrhoids. Since the blood-vessels contribute so much to these pathological growths it becomes necessary to investigate the source of vascular supply and to note the fact that the anal division of the rectum has connection with the general venous system, while the first and second portions have direct communication with the portal system. It is true that we have a free anastomoses of arteries and veins in the anal region, and but for the sphincter muscles in this contractile function guarding the outlet, we could not trace the derangement of circulation to either system. Let it be remembered that the inosculations of the two systems are well marked at the classical white line of Hilton, the point of union of the rectal mucosa with the integument and also the small interspace that intervenes between the internal and external sphincter muscles. Upon the sphincteric contraction we are greatly dependent to distinguish in diagnoses the internal from an external hemorrhoidal nodule.

The legitimate deduction to be drawn from the anatomical facts set forth in the distribution of blood to the rectum would incline us to look to the portal system as a prolific remote etiological factor in the production of internal hemorrhoids. In this variety of hemorrhoids we must also look to the state of all the pelvic organs

which, by disease or mal-position, may be the cause of the obstruction of vessels and the varicose condition that must inevitably follow because of the valueless vessels and the abundance of loose areolar tissue in which they are embedded.

After the division of piles into internal and external, we find it necessary to extend the classification into a subdivision of each variety, as the construction of each nodule depends upon the preponderance of either blood-vessels or adventitious connective tissue. When the tumor consists chiefly of expanded capillaries, it is known as the capillary variety. When a venous pouch, miniature aneurism or phlebectasis occurs with hyperplasia of connective tissue element, we recognize a venous tumor.

Dr. Allingham stands sponsor for additional forms called the arterial, in which the arteries predominate. Each of these varieties possess well-marked features of distinction, so that little experience in rectal exploration is needed to differentiate them.

Assuming that physicians and surgeons are quite familiar with the causation and symptomatology of such a common affection as the piles and the value of time for this Society in the reading of other papers perhaps more important and interesting than this, I will omit the causes and symptoms that are so readily recognized, and proceed to notice as succinctly as possible the different methods of treatment.

Dr. Allingham enumerates eleven distinct operations for the relief of hemorrhoids, the merits and demerits of each I do not purpose to discuss in this hastily prepared and immatured paper.

The following methods of treatment have been formulated by Dr. Allingham :

1. Excission with knife or scissors.
2. Ecrasures of Chassaignac or the wire of Maisonneuve.
3. Application of various acids and caustic pastes.
4. Injection of carbolic acid or other astringent fluids into the body of pile.
5. Cauterization "Ponctuëe" of Demarquay.
6. Cauterization linear of Waillemeis.
7. Removal by galvanic cautery wire.
8. Removal by clamp and scissors—applying actual cautery to arrest hemorrhage.
9. Dilatation of the sphincter muscles.

10. Removal by the screw crusher.

11. Ligature.

For a comprehensive description of the above operative procedures I would refer to the author, who has duly considered the *pros* and *cons* of each with regard to technique and practical results in treatment.

It would be presumption in one with limited clinical and operative experience to inveigh, even deferentially, against any method laid down by the master of surgery, whose clientele in metropolitan cities give ample opportunity for experimental knowledge in the various surgical procedures for the radical cure of hemorrhoids without any expectation to contribute additional information in their field of labor, I most respectfully submit a few reflections and deductions drawn from clinical data in the treatment of the disease under discussion. The consensus of opinion of both foreign and native surgeons in the election of operation for the relief of piles point to the ligature as the most satisfactory in result and simple in execution. The much revered and illustrious Gross and Van-Buren have both declared for ligation as free from danger and certain in its results. Such authority stands unimpeached, and hence the recognition and practice of the method throughout the enlightened medical world.

While I most heartily indorse this procedure and would not detract from its much vaunted superiority over other methods, I would yet vindicate the high estimate placed upon two other surgical resources that claim equal simplicity in adoption and safety in execution: I have reference to the eighth method as tabulated by Allingham, viz: Removal by clamp and scissors and the arrest of hemorrhage by the Pagnelin cautery, and also the fourth, the injection of carbolic acid or other astringent fluids—not into the bodies of the tumors, but into the connective tissue adjacent to the pedicle or bases of the tumors. The clamp process needs no defense. It has, as the ligature, by thorough trials and results, won the approval of all unbiased operators for radical cure of prolapsed hemorrhoids.

The injection method has been violently assailed and almost relegated to undeserved desuetude. Because of its easy application charlatans and empirics have armed themselves with hypodermatic syringe and acid and roamed over the country in great numbers professing to radically cure all varieties of piles with two or three

"shots," as it would be called in the Keely Institute parlance. In antagonizing this procedure we have the alleged dangers of embolism, pyæmia and peritonitis. In answer to this bill of indictment I would refer to Dr. Kelsy, of New York, who (notwithstanding recently he has become much less enthusiastic in the praise of this method) positively states that out of several hundred cases treated in this manner he did not have clinical data of failures or accidents upon which to base his change of method. Their recurrence after two or three years and the proneness of tumors to ulceration after being injected, influenced Kelsy in his change of procedure to the clamp and cautery, which he has chiefly practiced for the last few years. However, in an interview with Dr. Kelsy during a visit to New York in January last, he informed me that he had not entirely abandoned the treatment and that in some cases it answered better than any other procedure. In refutation of the plea of recurrence, I would state that all the methods are liable to this reappearance unless the entire pile area has been subjected to the method of some radical obliteration, and the only recognized operation that will effectively accomplish this ultimatum is what is known as the Whitehead resection method. The scope of this interference consists in dissecting up the mucous membrane with its varicose vessels and the nodules that may be discovered thereon for two or three inches and cut off the mass and bring the healthy or normal mucosa down and effect union with the integument by suture at the mucocutaneous white line. In this way only can I conceive how recurrent attacks can be prevented and at the same time avoid the complication of stricture of the rectum which would take place from cicatricial contraction by any other known method to destroy the hemorrhoidal territory.

In regard to the second objection, the "proneness of the tumors to ulceration, irrespective of the strength of the astringent fluid used," I would reply by calling attention to the fact that in the operations by ligation and cauterization you invariably have the same secondary condition in the effort by nature, through an inflammatory process, to throw off the foreign substance (the ligature) in one case and the (small sphacelus) in the cauterization method. I furthermore submit that, upon anatomical and pathological evidence, this much-dreaded ulceration of Dr. Kelsy's is but the logical result of traumatism in any part of the body where we have

sluggish circulation in consequence of varicosity of blood-vessels. The most trivial abrasion or contusion under such abnormal condition of the capillaries often lead to fearful phagadenic ulceration, and no relief can be found until the dilated vessels have been restored their normal calibre by the adoption of steady, uniform pressure, as in the use of the elastic stocking to relieve ulcers and varicose veins in the lower extremities. The anatomical reason is, the abundance of connective tissue in the sub-mucous coat of the rectum and the valveless veins channelled therein, ever subject to distention from manifold causes and conditions. To meet successfully these issues in opposition to the injection method, I would suggest that we simply imitate nature in the effort she institutes to relieve herself. By a subacute inflammatory process exudates are thrown out, connective tissue corpuscles proliferate until there is considerable induration, then contraction takes place, blood-vessels are obliterated and the original vascular growth now degenerates into a tumor decidedly fibrinous in character. Instead of injecting, as has been the custom of all practicing this method, the body of the pile, why not inject the irritant material employed as near the muscular tunic as practicable, as by so doing you avoid all the dangers arrayed against this surgical resource It has been my practice to return the diseased and hypertrophied masses, when prolapsed, to their proper place and operate on them intact. My reason for the use of the fenestrated speculum and canulated needle is to avoid having the muscular and peritoneal coats brought by the procedenture of the hemorrhoidal nodules into dangerous proximity with the points of election for the procedure. We are cognizant of the presence of all the rectal coats in prolapse of the second form and appreciate the great caution necessary in the treatment of this condition. And when the hemorrhoid has attained sufficient size as to be an obstruction in the act of defecation, we find rectal tenesmus ensuing and a low form of proctitis set up, and after the relaxation of the sphincter muscles prolapse of the tumor takes place and with it the surrounding structures are brought down, including, it may be, the serous covering. In the treatment of piles in situ we endeavor to inject our irritant fluid so as not to penetrate the muscular or serous tunics, because by that event we would have either grave trouble set up in the ischio-rectal fossa or superior pelvi-rectal space of Richet by penetrating the muscular coat and peritonitis,

if still higher in the pelvic cavity. When the tumors are sessile we insinuate the needle in a parallel line so as to avoid the bulk or body of the hemorrhoid and leave the fluid as deep in the sub-mucous membrane as possible, where the lymphatics are abundant and are ever ready as waste channels to take up and eliminate the atrophied mass after the necessary metabolic changes have taken place for absorption

In order to obliterate the vascular element, one of the chief constituents of the hemorrhoidal tumor, we must by weak solutions of astringents induce and maintain this induration at the upper base or pedicle so as to cut off the blood supply. This being accomplished, nothing but the factors of time and metabolism are essential to effect its entire removal. And all this accomplished without either embolism, pyæmia or peritonitis.

This vindication of the injection process has been solely prompted by my excellent success in the practice of the method and the desire to see it hold an equal position among other recognized methods of relief.

I would also notice the insuperable opposition of some patients to other procedures, and that it also may occur that anæsthesia is contra-indicated by some cardiac or renal affection. Under these circumstances our patrons would be compelled to eke out a precarious existence in the most distressing manner but for resort to this safe and most available procedure. Admitting the correctness of Dr. Kelsy's experience in regard to this reappearance, after the injection process, would not the exemption from excruciating pains and constant discomfort, for two or three years, be an eloquent and pathetic appeal for the universal adoption of a surgical resource upon which the happiness of nearly one-fifth of the entire adult population may depend.

I would mention that in the capillary variety, in which we have no protrusion and little pain, but frequent losses of variable quantities of blood, the application of nitric acid (chemically pure) is most effective in arresting the bloody discharges as well as obliterating the congeries of arterioles and venules, with their intermediate capillaries, giving rise to this form of trouble.

The effects of loss of blood in this form of hemorrhoid not infrequently result in extreme anæmia, thereby furnishing a congenial

soil for the implantation of some grave disease or the development of some latent disorder into serious constitutional disturbance.

I have omitted till now to notice the external division of hemorrhoids, not because of their trivial nature as compared with the internal variety, but because of the general practitioners' greater familiarity with this form of rectal trouble. This is a condition in which the amount of suffering is quite disproportionate to the amount of lesion. The middle and inferior hemorrhoidal veins, with the folds of integument and the subjacent areolar tissue are the anatomical parts implicated in this form of tumor.

From the dilatation of the vessels or extravasation into the connective tissue we have produced the sanguineous tumor.

When by absorption or suppuration the venous tumor is relieved, we have remaining a redundancy of integument and subcutaneous connective tissue in the form of tubs. This condition constitutes the second form or variety of external piles. The intensity of suffering caused by these apparently insignificant tumors, when acutely inflamed, often perplex the doctor, so urgent is the appeal of the patient for relief. If there is an encapsulated coagulum the indication is to release the same promptly by free incision made in the direction of the radiated folds of the anal orifice and apply compress and T bandage if any undue capillary oozing should occur. The treatment for the cutaneous variety is quite simple in execution and generally followed by entire relief. These skin and connective tissue hypertrophies, called excrescences or condylomata, after being cocainized are readily removed by knife or scissors, the hemorrhage controlled by Ferri subsulphat. or the Paquelin cautery. The only precautions to be observed in this operation is not to make the cut too close to the anus for fear of producing an abnormal contraction at the anal outlet by cicatricial contraction.

In the conclusion of this paper I have subjoined the clinical history of a few typical cases which may attest the practical exemplification of the foregoing deductions with reference to the pathology and treatment of hemorrhoids.

Mr. M., aged 59, occupation farmer, came to me to be relieved of a malady from which he had suffered for twenty years and on several occasions was compelled to take his bed because of the loss of blood and pain. Any indiscretion in eating or drinking and the

unavoidable exposure to inclement weather would bring on an acute attack.

Upon inquiry the symptoms all pointed to the rectum as the *fons et origo* of not only the periodically intense pain to which he was subjected, but the source of his general ill-health. To thoroughly and satisfactorily diagnose the case an enema of tepid water was administered, and evacuation of the bowels and prolapse of the hemorrhoidal tumors secured, I at once proceeded with my investigation. Inspection revealed four large hemorrhoidal tumors and a portion of the mucous and sub-mucous structures. The prolapse was effected by comparatively slight expulsive effort because of the relaxed condition of the sphincters. The mucous membrane was pseudo-cutaneous in appearance from constant exposure and the friction of clothing. The color of tumors indicated their complex character and classification. The varicosity of the veins, with considerable development of the connective tissue, constituted the bulk of each tumor. The arterial supply was greatly diminished by the induration and contraction of the areolar tissue. The exudation had produced considerable hardness in consequence of the recurrent inflammatory attacks.

By taxis the tumors were reduced and further digital explorations made, but nothing additional was discovered. The rectal ampulla or pouch was so completely filled with these hypertrophied masses that there was scant room for the speculum in the operative interference. The patient had exhausted all palliative remedies and came at the instance of a friend for treatment. The condition of the hemorrhoidal enlargement imperatively demanded a surgical procedure. In my opinion the election of the method lay between ligation and removal by clamp and scissors, applying the Paquelin cautery to arrest hemorrhage. The patient most emphatically refused any and all operations save the one by injection. The same afternoon I gave him the first treatment by attacking only two of the nodules with the irritating fluids of carbolic and boracic acids, 12 per cent. solution of each in water and glycerine. The third day, patient presented himself for another treatment, and, upon the introduction of a speculum, I found the first two treated had greatly diminished in size and decidedly less vascular. I thereupon proceeded to assault the remaining two in a similar manner, and at the same time to reinject the bases of the first two the second time.

After six injections, at intervals of two or three days, my patient was sufficiently improved to return home and resume control of his farm. I would mention as subsidiary treatment that he was requested to keep his bowels soluble and to bathe the anal region night and morning with cold water.

Mr. M. has visited my office several times since and expresses much delight over his deliverance from an affection of twenty years duration.

Case 2.—Mr. B., aged 70 years; farmer by occupation; has had hemorrhoids for thirty years, acuteness of suffering and loss of blood, which frequently incapacitated him for any kind of work; presented himself for investigation and treatment. The initial enema having been given, his burden of suffering was promptly presented in the shape of two large dwarf tomattos, which the hemorrhoidal masses resembled very much. The anal outlet was festooned by a number of tabes, the sequalæ of previous attacks of external piles. This condition of the anal environment was not detected, of course, until the protuberant masses had been returned intact.

The patient had heard of the "painless and radical cure for piles," and at once assumed authority in the premises and dictated the method of procedure, which, of course, was the injection process, as the latter involved no operation of cutting or the use of an anæsthetic, chloroform or ether. This case of hemorrhoids was quite suitable for clamp-scissors and cautery or the ligature, but the patient being inflexible in his opposition, I proceeded to inject, as in the first case, but only one tumor at a time, because of the immense size of the masses. After five or six injections of the carbolic acid, 12 per cent. solution, at intervals of two days, the nodules had greatly reduced in size and degenerated into a pulpy condition, and at the expiration of four weeks there was scarcely a vestige discoverable, and no bleeding or protrusion has taken place since.

Mr. B. has increased in weight and bids fair, in general health, to reach the date of an octogenarian.

Case 3.—Mr. G., aged 38; by occupation farmer; has been in bad health ten years from constant loss of blood whenever he evacuated the bowels; has never had any protrusion from the bowels to attract his attention; has never suffered any pain; the only symptom was the constant loss of blood at stool.

Mr. G. was extremely anæmic, very feeble indeed, shortness of breath on the slightest exertion, and had been unable to work for several months. Upon the introduction of the speculum I detected, high up in the cavity of the rectum, some small florid patches of raspberry-looking growths, which bleed upon the slightest touch. These plaques presented a granular or red velvety appearance characteristic of the capillary variety of hemorrhoids. I at once made an application of nitric acid to the entire bleeding surface after having first cleared the canal of at least two or three ounces of blood which escaped during the exploration.

Mr. G. remained under observation for two weeks and received in all only four treatments, and has been perfectly relieved of all troubles and is now in the enjoyment of excellent health.

Gentlemen of the Society, trusting that this communication may not have been uninteresting, and that your patience has not been sorely taxed, I must extend thanks for your respectful audience

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THE UNLICENSED.—The impostor VanDoren, whose case was before the Supreme Court of North Carolina for violation of the law in Plymouth only a few months since, is again trying his arts and violating the law—slipping into towns and selling out his nostrums and disappearing before his presence is known to the authorities. A negro who was convicted of practising medicine without a license was fined $25 for the offense, in the Wilmington Criminal Court, but failing to pay the fine was sentenced to six months in the House of Correction. We have hope yet that the law will reach higher game than this.

NITRO-GLYCERINE.—A more extensive knowledge of the uses of nitro-glycerine enhances its value. In cases where digitalis is not tolerated by the stomach, and in what seems to be opposite conditions of the heart, by slowly increasing the dose from one up to five or six drops, watching the effects carefully, the happiest results are noticed. In cardiac dyspnœa its effects are very satisfactory. Use only the tincture and see that your patient has a medicine-dropper.

OUR PINE FORESTS AS FACTORS OF HEALTH.

By S. S. Satchwell, A.M., M.D.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

The eastern counties of our State present an inviting field of medical research and investigation. Comprising a vast extent of territory, a variety of climate and atmosphere, many species of the vegetable and mineral kingdom, they are covered by fertile fields, rich swamps, extensive planes and large forests of pine trees. This vast extent of territory contains one and at the same time the elements which produce pain, disease and death, and the remedies by which they are relieved and subverted. That wonderful divine, Henry Ward Beecher, said that "among the roots and herbs to be found in nearly every grave-yard there is a remedy, if only ascertained, which would have relieved over half the victims who were laid to rest in death's embrace beneath is green sod." Without commenting on this striking proposition, there are reasons for the opinion that our grand and productive State, in her eastern and western boundaries, contains elements which are susceptible of being made remedies for nearly all the diseases to which our people are liable As we cast our eyes over our eastern boundaries there is much that is peculiar and of special interest to the medical observer. As the mysterious volume of nature is opened to us with the laws of health and life written upon its ample pages, we behold, on the one hand, great atmospheric changes between the east and west, the exhilarating properties of our ocean breezes, the moisture of our atmosphere, particularly near the coast, interfering with the functions of the skin and demanding the compensating action of the liver and lung; and, on the other hand, are found, upon our planes, along our streams and in our forests and fertile fields, in rich abundance, the finest specimens of beautiful flowers, medicinal roots and herbs, that adorn the vegetable kingdom, constantly adding to the wealth of the materia medica and to the usefulness of medical science.

Eastern North Carolina can be complimented and congratulated not alone upon her great natural advantages and magnificent resources of minerals, water-power, wealth of climate, lands, forests

and adaptation to commerce, manufactures, horticulture and agriculture, but in the way of sanitation, drinking water, amount of disease, bills of mortality and the general health of our people, we are making great improvement, and may challenge comparison with any portion of our noble old State. Would that I could impress upon every North Carolinian the vast benefit that has accrued to the public health and the public wealth of a *procedure*, potent, talismanic, destructive to disease and efficient to remove causes of disease in all our malarious localities and destined to reduce still more, with the advancing years, the death-rate in all these eastern counties and cities. That procedure is thorough drainage. Large tracts of land, from time immemorial hot-beds of malaria and the home of disease and pestilence, have become, by this agency alone, the abodes of health, comfort and happiness. Every year do we see effectual drainage routing this fell-destroyer of our race from his old accustomed haunts and dislodging him from his strong entrenchments in the east, until it stands out as a beacon truth in the light of sanitary science that malarious diseases, in their numerous phases and changing aspects, are passing away as the years roll on.

But these diseases and their varying complications and grades are not destitute of interest still to the physician, as the changing seasons of wet or dry, cool or hot, and other atmospheric varieties, render different communities more or less sickly. Malaria still abounds in different places as the conditions are favorable to its production, now manifesting itself in one form and then in another—sometimes intercurrent with some other disease more or less marking its features, and then assuming the shape of another malady, not always easy to diagnose and cure. It still prevails extensively, finding victims in every direction, and in every favoring locality visiting its effects upon our patients and ourselves. This invisible, *imponderable*, and yet positive agent of disease, is borne still, as in ages past, upon the wings of the morning breeze, the evening mists and the nightly vapors entangle it in their meshes, and the fragrant odors of spring are treacherous with its poison.

My main object, however, in this paper, is to present the merits and claims for health, in other respects, of a very large portion—more than one-half, perhaps, of the east - in the beneficence of nature alone. I allude to the antiseptic, hygienic and preventive

properties of our eastern pine tree, or the exemption of our pine forests from consumption, malaria and germ diseases. For more than three decades I have been continuously engaged in laborious country practice in our eastern counties, comprising every variety of malarious locality, whether productive of the milder forms of intermittent and remittent fevers or of the higher grades of malarial fevers as seen in severe congestions and hemorrhagic malarial fever. I have also practiced extensively during all this time upon the pine ridges and in the pine forests of numerous of these eastern counties, especially east of the Wilmington and Weldon Railroad and between Virginia and South Carolina. I have to record as the result of a long and arduous practice, based upon my observation and experience, that, while malarial diseases and their complications with other diseases are peculiar and indigenous to malarious localities, sandy regions, abounding in pine forests, are exempt from malaria, from the production of consumption, diphtheria, puerperal fever and diseases of almost every class that are due to bacterial infection. I do not say that consumption and diseases of germ origin do not occur at all where pine forests abound, but my experience is that they are of very rare occurrence.

Look at the tall pine tree of our eastern planes and sandy soil with its absorbent powers. Its tall, columnar trunk offers less mechanical obstacle to the passage of air, and a smooth surface for the concentration of dews and vapors than any other tree of the woods. But it seems gifted with singular salubrious powers, and imbued with healing virtues and antiseptic properties in every bough. Every tree of the forest circulates, secretes and eliminates, so long as alive, its specific and peculiar effluvia. The pine has its azone. Though no chemical analysis has been made of its exhalations, it is reasonable to conclude that they may possess certain unseen virtues, specific chemical properties and affinities which may enable them to mitigate, neutralize, decompose or render inert malaria, the bacillus of consumption and the micro-organisms of other diseases.

Physicians and laymen alike contend for the hygienic and health-preserving properties of the piney woods of our eastern counties and of the piney sections of our Atlantic slope. They ascribe to the presence of our piney forests the proverbial and remarkable exemption of the inhabitants of this vast extent of territory from

malarious diseases, from consumption, from puerperal fever, from continued fevers, diphtheria and other diseases originating from the presence of germs. The fact that piney regions of country are healthy is proverbial and traditional—established beyond cavil or dispute.

It is true that good drinking-water is almost always found in piney lands, and this may have some causative action in producing the healthfulness of our piney sections. It is true that the soil of pine forests is generally sandy and its capacity and powers to absorb not alone malaria, but bacterial germs, as they float in the air, may have some relation to this healthfulness. But that, above and beyond all this, there is a *something* in the pine tree that is antidotal to malarial poison, antagonistic and hostile to the causes of other fevers, to puerperal fever, to diphtheria, to septic infection and blood-poisoning, and germ disease generally, is a well-established truth of observation and experience.

Although these sanitary facts as to the pine tree are treated with strange indifference and neglect, both by the medical and non-medical public, the subject is by no means new, illustrating that when we look into the history of almost any subject how little there is new in its facts and its phenomena. What is new consists in our manner of regarding them, our comprehension and application of them.

The pine and its preparations have been long regarded as hygienic and curative, but as especially remedial in the antiseptic treatment of pulmonary diseases. The adoption and success of antiseptic methods of treatment of pulmonary affections have been recorded again and again, and as often have met with opposition, because the treatment has often been held to be empirical. But long experience and faithful investigations have reduced it to a more scientific basis. The antiquity of the fact of the antiseptic treatment of pulmonary disease in the way of tar vapors dates back to the days of Hippocrates and Galen. Galen advised consumptive patients to settle in the vicinity of Vesuvius and Ætna, and to inhale sulphurous and tar vapors and sea air. It is a noticeable fact in the history of pulmonary therapeutics in the last hundred years of the frequency with which tar vapor has been advocated as of great value in the treatment of lung disease. Dr. Rush, of Philadelphia, in 1787, Dr. Beddoes, of England, about the same time, and Sir

Alexander Chrichton, about the same time, all stated that they had met with great success in treating consumption by the inhalation of the vapor of boiling tar. Since the time of Hippocrates and Galen other illustrious physicians, Skoda and others have used the inhalations of the vapor of tar and turpentine with much success in phthisis, pulmonary gangrene, and in bronchial troubles and catarrhal affections of the air-passages. Its application has often failed because of the useless attempt to test any method of treatment in cases of advanced phthisis. No line of treatment will be effective in causing suppurating cavities to close up and heal, or is competent to replace lung tissue that has been destroyed by progres sive ulceration and disintegration. Hundreds of cases of consumption are daily coming before us already in this State. That is why so many advanced cases die who go for relief to the piney lands of Florida and other States.

Coming down along the line of enquiry from the days when Rush and Skoda and the earlier physicians and the vapor of tar and turpentine as remedies, to more recent times, let us see if experience now teaches that pine forests and preparations and extracts from the pine tree have an influence in sterilizing and destroying and neutralizing miasmatic emanations, germs and microbes. Wherever a turpentine still is in active operation we find an agency at work which is inimical to miasm and to living germs and microbes. Localities and places sickly previous to the erection and operation of one or more turpentine stills have been subjected to such atmospheric changes and sanitary improvement as to become healthy. When the turpentine stills have ceased to be used the former unhealthiness of the localities have generally returned, favoring the belief that the process of distillation of the spirits from the crude turpentine is sanitary. Likewise persons of weak lungs who habitually work around, and in immediate proximity to, turpentine stills while this distillation is going on, generally improve in their pulmonary troubles and in their general health.

We learn by observation of the health-giving properties of the pine tree as it abounds in the sandy regions of the Atlantic slope of North and South Carolina. The inhabitants are taught by experience that if they remain during the warm season upon the sounds, bays, creeks, rivers and other low places that are liable to malaria and zymotic causes of disease, they are apt to be sickly.

As a consequence we find them inclined to remove during the sickly season to the higher regions of the pine, and that in so doing they are generally exempt from malarial and typhoid diseases and affections caused by micro-organims. Farmers and others who reside near the coast of our own State and that of South Carolina are familiar with these significant facts and profit by them when they are able to do so. The intelligent farmer who clears his swamp land and cultivates his low-land farm knows that he is in danger of sickness if he constructs his dwelling in the same place and inhabits it, and hence he chooses some elevated pine ridges as his residence, with the air and drinking-water purified with the emanations from the surrounding pines. The great work of sanitary progress in the way of better drinking-water, more efficient drainage and purer air that is going on in our State, is steadily *preventing preventable* causes of disease and lessening our bills of mortality.

It deserves to be repeated, with emphasis, that in the piney belts of North and South Carolina diphtheria, typhoid and malarial fever, puerperal fever, and the whole class of zymotic diseases are extremely rare. I cannot say positively that the peculiar exemption of these extensive piney belts from these diseases, including consumption, is due to the pine tree, but it is a fact beyond dispute that where the turpentine tree is abundant certain classes of diseases, such as consumption, malarial disease, diphtheria, puerperal fever and other affections due to bacterial infection or to the presence of germs and microbes, are of very rare occurrence. Why this is so remains to be discovered by the investigations of some scientific germs. As to the remedial effects of turpentine in diseases of the class mentioned by our experience and that of every observant physician will bear testimony to its admirable action. Its daily increased use by the profession in this class of diseases everywhere, and its traditional use for ages, both internally and externally, bear strong testimony of its worth. For external use for cuts and wounds I know of no remedy its equal. I have often seen the fresh gum from the turpentine boxes applied to cuts and always with the happiest results. The application of the strong spirits to the diphtheritic throat destroys the membrane as I have never seen it done by any other application. Whether its beneficial action, administered externally or internally, does not depend upon its adaptation and power to sterilize and destroy bacterial germs and

living organisms, as they exist in cuts and wounds, and upon internal surfaces when typhoid fever assails a patient, for example, or the poison of miasm sets up bilious fever in the system, may well be a matter of enquiry.

Another peculiarity of the piney belts is their exemption from the septic poisoning, gangrene and erysipelas, of wounds and surgical operations. During my professional life I have frequently been called upon to perform important and unimportant surgical operations, as my country practice has extended to piney woods sections. In no operation that I have performed in the piney woods, or amputation, or wound that I have treated in a piney belt, have I had to combat pyæmia, septicæmia, erysipelas or gangrene. The purity of the air of the piney belts seems to favor surgical treatment in every respect. If city hospitals, infirmaries, alms-houses and other places for the treatment of medical and surgical cases could be changed from cities and towns and other localities where the air is not good to the antiseptic influences of pure air and piney communities, they could be managed more successfully and with less mortality. My observation and experience as a surgeon during the late war, in charge of a hospital most of the time averaging from three to four hundred sick Confederate soldiers, gave me valuable lessons and impressive memories all along this line.

It may be well just here to remark that outside of our piney sections nearly all of our diseases are more or less malarious the year round, and are disposed to be periodical, demanding quinine. For several years we have had less of malarial disease and more of typhoid, though the typhoid fever of the east does not seem to prevail so extensively as it does in the west, and is of a milder and less fatal form. It deserves to be remembered that in our eastern counties and towns we sometimes have, in the same case of sickness, two different poisons and causes of disease operating at the same time. In all such cases this co-existence seems to modify the action of each, produces a milder type of fever and a variety of treatment to correspond with the periodicity and other characteristics of each particular case.

And now let us briefly apply the statements, views and reasoning of this paper to the great practical and important question of the health and the resources of health of eastern North Carolina.

Looking, in the first place, at the malarious localities of the east,

we find that malaria has been steadily but surely giving up its intrenchments and strongholds for a number of years, under the influences of drainage and other sanitary measures. With this disappearance of malaria and of the causes of typhoid fever as well, under the operation of preventable and removable means antagonistic and destructive, too, of typhoid poison, there has been gradually going on in the east less and less of malarial and typhoid fever. So that, in relation to these diseases alone, the public health in eastern North Carolina has greatly improved and is steadily improving. With the system of sanitation now at work in all our eastern towns, counties and cities, there is every reason to believe that the whole family of malarious and typhoid fever will steadily decrease and will be eventually unknown. But be it remembered that a very large portion of the east abounds in pine trees and is covered by the piney belts, that are remarkably exempt from disease. The piney sections embrace a large portion of the east from the coast to near Raleigh and Fayetteville, and higher up, and from Virginia to South Carolina. Within this vast area of piney land it is likely that there exists *one-half* or *two-thirds* of eastern North Carolina. It is held to be almost wholly exempt from malarial and typhoid causes of disease, from diphtheria and zymotic diseases and other affections arising from germs and microbes, upon the ground that these diseases do not find a congenial home in our pine forests. If the observations and experience of physicians and laymen all along these lines are to be regarded, there is no portion of North Carolina more healthy than the east. Our statistics of health, longevity and bills of mortality will sustain this view. And yet in this important relation great injustice and very great wrong has been done the east, with its fertile lands, magnificent forests, abundance of mineral resources and wealth of climate. It is time that truth should prevail, that erroneous views should be corrected in regard to the great attractions and unrevealed advantages of the east. Laborers and men of skill and capital in other States and across the ocean, seeking new and healthier homes with more inviting fields of enterprize and investment, have long been deceived and blinded by misapprehensions and false statements bearing upon these grave interests. The incontrovertible truth has been suppressed and withheld from other States and other countries that no healthier homes can be found than throughout eastern North

Carolina, and no portion of earth where the soil is more generous and where nature has been more bountiful and magnificent in all those gifts which contribute most to the comfort, prosperity and happiness of man.

But certain causes have operated against the development and utilization and appreciation of our health benefits and other great things which kind and generous nature has done for our eastern people—one is the great objection of capital to invest where the negro ignorant vote is oveswhelming and where taxation is at the disposal of ignorant suffrage. And here is an argument for popular education strong, binding, invincible and paramount. Another is the wide-spread misapprehension which exists in regard to our sanitary condition, our drinking-water, our climate and other health benefits. As already said, the observation and experience of physicians who have practiced in our reclaimed and well-drained swamp lands and piney belts will bear out the statement that, even admitting the presence of malaria, typhoid fever causes, and zymotic diseases in these localities, they are less severe in form, far more amenable to treatment and less fatal than in the hilly and mountainous regions of our State. That while it is the boast that the higher altitudes of the west produce specimens of more robust physical stamina, medical observation and experience justify the statement that in the matter of health and longevity the east will compare favorably, not alone with the west, but with almost any part of the American continent. It is not unlikely that climatic changes in the east have been going on for a number of years that have combined with other causes in improving its sanitation and in rendering the entire east more salubrious. The existence of a semi-tropical climate along our North Carolina coast, embracing pine forests, at the mouth (extended) of the Cape Fear river, as shown by the thermometer and vegetable growths, recommends this section eminently for health and as suitable for a sanitarium, as higher altitudes, especially for pulmonary complaints.

One great obstacle to development and progress in the east is the failure of our own people to appreciate our soil and climate and to place a just estimate upon the precious gifts and manifold blessings which nature has so richly spread before us, including that of health. Where nature has done the most for man, there man has done the least for himself. The proverbial ignorance and indolence

of our people renders them insensible to enterprise, dormant and indifferent to immigration of capital and suitable labor. We lay supinely upon our backs and wait, in contentment, for others from abroad to stimulate us to effort, and to come and tell us what to do and how to do it. Our hope is in the infusion of new blood and better methods that will reclaim our farms, utilize our forests, erect more manufactures, build up schools, churches, towns and cities, people our railroads.

DISCUSSION.

Dr. Haigh thought it was his duty to bear witness to some of the facts brought out in the paper. We have all along the line of this country been too quiet and entirely too modest in regard to the health-giving properties of our climate. All through this middle country of eastern North Carolina, where in years past malaria existed so extensively, the change has been simply marvelous. He spoke of the severity and fatality of the bilious fevers that were so common at the time he began to practice medicine, about forty years ago, saying they were nearly as malignant in some cases as yellow fever. Now it is a rare thing to have bilious fever. We have the mild forms of intermittent fever and what he calls intestinal fevers, for they rarely reach the type of typhoid. He said our climate is inviting to those seeking health. He was glad the Doctor brought forth the virtues of the pine It is especially useful in irritation of the mucous membrane of the bowels. During the war he had to depend upon it to a very large extent, using it both externally and internally in mucilaginous drinks, and since then some of his worst forms of low fevers have been entirely relieved by the use of oil of turpentine. There is one point on which greater stress should be laid—it is the system of drainage in the eastern part of the State, which has greatly improved. For a long time the people of the hill country have been afraid to come to the low country for fear of having fever, while we think it is sometimes more dangerous to go to the high country. He thinks we have as healthy a country as any part of the State; we are more free from violent disease. We ought not longer to allow the stigma under which we have rested so long. He was not prepared to endorse what the Doctor said in regard to diphtheria. He does not fully understand the nature of the disease nor what causes it.

He does know that in certain regions where there was no manner of filth, where everything was as clean as possible and the water perfectly pure and the air was filled with the perfume of the pine, he has seen some of the worst cases of diphtheria he ever encountered. He has never been able to satisfy himself that it is a filth disease; as other diseases, it is possibly intensified by the surroundings as found in large cities.

Dr. Potter thought he could give some practical demonstrations of the healthfulness of the pine forest. Anterior to the late war the farmers living near the water courses were in the habit of moving up into the higher pine regions on the approach of summer. and they rarely suffered from malaria. He cited the case of a man who thought he might do just as well if he remained in his winter home in the low-lands. He tried it for two summers, and during those two years lost three of his family. He thought we seldom have a genuine case of typhoid fever. He has seen diphtheria in the highest pine regions where he could see no cause for it, but where the diseases seemed almost to originate *de novo*. He mentioned an epidemic that started in the barracks in a small town where he was in charge as surgeon. On searching for the cause he found under one of the platforms connected with the building a reeking cess-pool. As soon as this was cleaned there were no more cases of the disease. This outbreak seemed to have a cause in this cess-pool.

THE CHARLOTTE MEDICAL JOURNAL.—Vol. 1 No. 1, July, 1892, visited us to-day. It is a neat journal, a monthly, printed in good bold type, and enters the field with youthful energy. It is under the editorial and business management of E. C. Register, M.D., and J. C. Montgomery, M.D., of Charlotte.

JULIAN J. CHISOLM, M.D., LLD.—The South Carolina College, at its recent Commencement (June 29th) conferred the degree of LL.D. upon Prof. Julian J. Chisolm. He has achieved any distinction a literary college has within its power to bestow, and we are pleased to see that the University of his own State has so honored itself.

A REVIEW OF THE PATHOLOGY OF DIPHTHERIA WITH SPECIAL REFERENCE TO A NEW METHOD OF TREATMENT BASED UPON THE PAST THREE YEAR'S EXPERIENCE OF ITS REMEDIAL VALUE IN TWENTY-FIVE CASES.

By Dr. MARTINDALE, New York.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

According to Oertel diphtheria is one of the oldest epidemic diseases of the human race, it being claimed by Aratæus to have originated in Egypt and Syria, whence its name, "Malum Egypticum,"* supposed to have been conferred upon it by Hippocrates who was, presumably, more thoroughly conversant with its general pathological characteristics than any of his compeers of that early period. In reality, however, diphtheria was but little known, as an infectious disease, until Bretonneau† laid his treatise upon its essential characteristics of an exudation in the throat before the Academy of Medicine of France in 1821.

The area of pathological investigation widening under the stimulus of individual effort of a number of German, French and English scientists of that period, we finally come to the more recent clinical observations of Virchow,‡ who first directed attention to the occurrence, in diphtheritic inflammation, of an exudation into the substance of the mucous membrane, followed by sloughing.

This constituted, in fact, the first important step in advance in determining the true pathological conditions underlying systemic poisoning in this disease. It has, however, only been since a comparatively recent period that the true pathological constituents of diphtheria were determined by Hueter§ and Oertel¶ in the discovery, in great numbers, of vegetable organisms, to which Oertel gave the name of micrococci. Certain it is, that in this country, at that time, very little was known of the peculiar infective ten-

*Ziemssen ; Vol 1, p. 575

†Des inflammations et de la diphtherite Paris, 1826

‡Virchow's Archives, 2, 4 ; p 550. 1870.

§Hueter and Tomassi, *Centralb* , 1868 ; pp 31-34.

¶Oertel, Studiere uber Dipthe., *Aqff'll Int* , 1865.

dencies of this local exudation, in the direction of general sepsis, prior to 1850, for a very distinct remembrance comes to the writer of his having been treated in 1840 by the family physician at his native place for an attack of what was then termed putrid sore-throat, and of his having had his throat swabbed at intervals with a solution of salt, vinegar and red pepper, then regarded as the *ne plus ultra* of remedies for this special type of local sepsis, and it will be proper here to note the fact that the disease attacked him in the early spring and that the cellar of the paternal residence was, during the winter, chiefly utilized for the storage of potatoes, being unventilated and without light, by reason of embankments around the foundations outside for protection from frost; that this recaptacle was usually flooded at the spring freshet, sometimes before that farm products had been entirely disposed of, when some three feet of water were contained therein, its depth having been governed by the quantity of snow remaining at the spring equinox, which leads to the consideration of a point of some interest in this connection, involving the chief characterics of the vegetable germ "Peronospora Infectans" claimed to possess such persistence of vitality as to be capable of "resisting the heaviest frosts of winter and greatest heat of summer," its habitat and feeding ground being the potatoe, of universal consumption among all classes and invariably stored, in country localities in the old-time house cellar, undrained or lighted as also unventilated, is not, in fact, the efficient* *materia morbi* of every diphtheritic exudation as also the micrococcus, Oertel claims as constituting that disease. Three cases in a well-to-do farmer's family of Richmond county, New York, under my personal observation, seeming to sustain this view; the chimney from the cellar, in which a large quantity of potatoes was stored, affording draft to the heater in the room where the children slept, it being impossible to assign other cause for the outbreak. The proprietor, a man of sound judgment, upon its being suggested to him, constructed a potato cellar in a lot adjoining, and has had no occasion since for any medical services in connection with that special type of septic disease.

As to the local characteristics of the exudation, it is first found in the form of a small white or yellowish white spot on the tonsil,

*Ziemssen; Vol. 1, p. 579.

uvula or posterior pharyngeal wall, which soon becomes the focus of a general infection unless prompt efforts are inaugurated for the thorough annihilation of the rapidly multiplying germs.

From the foregoing it may therefore be assumed that diphtheria is always, at first, a local disease, becoming, by multiplication of germs and enlargement of area by infection, general in its character, ranging anywhere between simple excitement of the circulating system and the gravest forms of systemic and pyæmic poisoning.

A third class of symptoms, following those of a febrile character, are such as involve the muscular system, ranging from a local paralysis to a general ataxia. Another of its peculiar features is its invariable selection of the air-passages, the destructive changes involved being wholly due to the favorable conditions found therein for the propagation and dissemination, through the circulatory system, of its specific germs, this pathological fact having been determined by Oertel,* through a series of inoculations of animals made in conjunction with Hueter,† Trendelenburg and Nassiloff, for this specific purpose.

Without, therefore, entering upon a more extended analysis of the etiology of the morbific processes involved in systemic poisoning by the class of vegetable germs termed micrococci, it will be enough for our purpose to have called your attention to the fact of their being engrafted, with such wonderful rapidity at different points of the air-passages as to establish, within a remarkably short period of time, profound systemic poisoning from a circumscribed local infection, a fact fully established, experimentally, by Nassiloff and others.

Your attention is also directed to two other peculiar features of this disease, the first being its more general prevalence in winter, the second its apparent selection of children preferably to adults. Statistics gathered by Widmer‡ show the maximum of mortality from diphtheria to be from September to December, and its minimum from April to August, and present a reasonable estimate of its general prevalence in the several months of its selection during the year, special regard being had for local conditions of drainage and

*Ziemssen; Vol. 1, p 577.

†Nassiloff uber das Wesender Diph.

‡Widmer, Statistician; Munchiden Epidemics, January, '64-'69.

water-supply, constituting, as there is every reason to believe they do, the chief etiological factors of all epidemics of which we have any reliable reports, it being a well-known fact that house-drains are generally more obstructed in winter than in summer. Why children between the ages of two and six years are, as a rule, more susceptible to diphtheritic infection than infants or adults, there are sound reasons for the belief that this characteristic is chiefly due to the fact that their imaginative perceptions are much more prominent than their reasoning faculties; children are always delving in unsavory localities in search of hidden treasures, and they are sure to be the first discoverers of any septic conditions prevailing about the family homestead. Hundreds of infantile lives have been sacrificed by just such apparently insignificant causes, especially in country localitses.

In view, then, of the facts established by Oertel and Nassiloff,* in Germany, Leloir,† in France, and Burden‡ and Sanderson,§ and others in England, that diphtheria is really an infiltration of living tissues with the vegetable germs termed micrococci, and that their prompt destruction is a *sine qua non* to the safety of the individual, we are confronted with the problem of how these septic germs are to be rendered harmless without injury to the infected mucous and sub-mucous tissues of the pharyngeal and naso-pharyngeal walls; it becomes clear that the remedy best calculated to rid the system of these septic germs will be an atmosphere so harmless to the respiratory organs and yet so saturated with a germicide that, while it promptly destroys the rapidly propagating germs, resolving them into asepticized and absolutely inert matter, enables it to be conveyed, harmlessly, through the intestinal canal without injury to patient or attendants, or the possibility of future infection.

The larynx being implicated, as is not infrequently the case, the aphonia resulting from the organization of false membranes on the vocal chords is always a prompt and reliable notification of the fact, and the only remedy that has proven effective for their prompt resolution, has been a germicidal atmosphere that alone could reach the seat of aseptic exudation, search out and resolve the morbific elements threatening the life of childhood.

*Studien uber Diptherie, 1868.
†Uber das Wesen deright.
‡Virchow's Archives; Vol. 54, pp. 1-25 and 254, 1871.
§Recherches Cliniques sur les Affections pseudo-Dipth.

It will be unnecessary to refer to the ordinary prodromæ of an attack of diphtheria, nor need there be more than merely cited the usual methods of treatment.

First, and most prominent, have been gargles of various combinations of antiseptics, with the administration, internally, of remedies of the same character, notably that of Prof. Fordyce Barker, a most admirable one, as I can testify to; in later years the former have been displaced by sprays of various germicidal solutions, and more particularly the application of super-heated vapor to the degrees of °113 to °122 F.,* with the view to the establishment of an abundant suppuration, with detachment of the membrane, as rapidly as possible. This method was in the right direction, and to a degree efficacious, but it did not fulfil the germicidal purpose demanded for the effective stamping out of the disease.

Such of you as have attempted to treat children with aseptic sprays and gargles will recognize the fact that the accomplishment of any favorable results in the graver class of such cases is practically impossible.

Your attention is now invited to the consideration of a special method of treatment of all cases of diphtheria, in children under six years, specially, and of adults likewise, optionally, adopted by the writer within the past three years, that it is to be hoped may commend itself to the judgment, if not the experience, of members of the profession in the "Old Tar State" with equally satisfactory results for the future as have accrued to him in the past three years in twenty-five cases, in three of which the exudation extended to the larynx, in one to the tympanum, and in four to the naso-pharyngeal cavities—one having reached the stage of general systemic poisoning before consultation was had being the only death out of that number.

As may be inferred from the pathological changes occurring in the naso-pharyngeal mucous membrane from an extension of the diphtheritic process thereto, or into the larynx and trachea, the possibility of combating effectively the destructive metamorphosis of mucous and sub-mucous tissues by gargles and aseptic sprays becomes an exceedingly limited one, especially as regards children, hence the comparatively large mortality in that class of cases;

*Ziemssen; Vol. 1, p 675.

under four years of age, in fact, even in much older subjects, systemic poisoning results from our inability to counteract the necrotic process that is steadily and actively progressing beyond the limit of our capacity to determine.

It is clear, therefore, if it is our purpose to relegate diphtheria to the class of so-called benign diseases, that some method of treatment must be adopted that shall act positively and effectively as an antiseptic over and throughout the laryngeal and naso-pharyngeal cavities. Such a process must involve the saturation of the atmosphere of the sick-room or ward with a powerfully aseptic vapor that shall prove so positively non-irritant to the air-passages as that it may be maintained continuously or for an indefinite period, until the disease has been thoroughly eradicated and systemic poisoning averted. It is in the writer's experience already established that such a method of treatment can be effectively utilized through the combined vapors of tar and turpentine, under certain limitations, as to the number of cubic feet of air space and the degree of atmospheric saturation to which the patient should be subjected, consideration being had also in respect of the severity of the attack, a marked tendency to sepsis demanding a higher degree of saturation and *vice versa*.

This plan of treatment was first utilized in this disease by the writer some three years since, his attention having been directed to its efficacy, as applied, during the stage of softening, in pulmonary tuberculosis, and it affords him profound satisfaction to be able to state here that all cases of diphtheria treated by this method from their inception to the number of twenty-five, with one exception, recovered completely within five to twelve days, and that without subjective complications.

Of the single case to which he was called as consultant on the sixth day after the inception of the disease, treatment by this method being then adopted, proved unavailing, systemic poisoning having already supervened, and its application having also been ineffective by reason of lack of discipline on the part of the nurse, who proved inefficient in fulfilling the duties intrusted to her.

The cases referred to were all well marked, false membrane covering the tonsils and posterior and naso-pharyngeal cavities, and in one invading the larynx and vocal chords, this having fallen into the writer's hands through the failure of the family physician to

reach a diagnosis. Examination afforded little hope of averting a fatal issue, the tonsils, posterior pharyngeal and palatal mucous membranes being covered with a dirty greyish brown coating of false membranes and a pronounced hoarseness, giving evidence of laryngeal invasion, in fact, a minor degree of systemic poisoning had already ensued accompanied by a moderate degree of dyspnœa.

Vaporization of the sick-room was at once inaugurated to the highest degree, 105°, and a thoroughly qualified nurse placed in charge with orders to maintain it at that standard until otherwise notified. Personal experience, I recall, impressed me with the fact that more than ordinary resolution was demanded to remain in the sick-room the half-hour usually devoted to the case, the degree of atmospheric saturation being much more appreciable to anyone entering it from the cooler air without. Nurses in constant attendance on these cases, however, acquire a degree of tolerance that to the medical attendant or visitor (for visitors can be freely admitted under this method with absolute impunity), partakes of the marvelous, and yet, in all his experience with this potent remedy, there has never been found a child patient that made the slighest complaint, and there were a number subjected to its influence from five to seven days continuously.

From further observation of the therapeusis of this method of treatment it has been determined that within twenty-four hours the dark greyish exudation on the tonsils or posterior pharyngeal wall becomes loosened at its border and contracts gradually, a slow suppurative process having been established in the sub-mucous tissues. The degree of atmospheric saturation having ranged between 105° and 103° F. should, when the membrane has been detached, be gradually reduced to 100°, the chief point to be had in view being a saturation of the local atmosphere to such degree only as may be requisite to the attainment of the desired results, no higher temperature than 105° being required to secure the prompt and effective removal of any diphtheritic exudation from any of the air-passages by the method thus determined.

In the case referred to the hoarse, stridulant cough remained as a somewhat threatening symptom for several days, otherwise the patient brightened up, the gradually falling temperature giving evidence of a positive gain in the contest for life. On the fourth day all the sloughs had disappeared, leaving healthy granulating

surfaces in their stead. The probabilities of recovery were increasing and the parent's hearts were throbbing with renewed hope, when some pain in the right ear, accompanied with a moderate degree of deafness, caused uneasiness. It must be stated here that Dr. Barker's prescription of iron, quinine and potass chlor. have been administered persistently since the inauguration of the treatment.

At the beginning of the second week the croupous cough had disappeared, the only permanent disability resulting from the disease, apparent, being the deafness of the right ear due to the extension of the morbific process to the tympanum *via* the Eustachian tube. The child, having scarcely recovered from this unusually severe attack of diphtheria, shortly after succumbed to one of rubeola, which more seriously aggravated the tympanic congestion, for the relief of which the parents were recommended to consult an aurist. This child is to-day in the best of health after one of the most severe attacks of diphtheria it has been the writer's lot to be called upon to treat, and to him it seems there can be no question that the combined vapors of boiling tar and turpentine were the effective agencies in the destruction of the diphtheritic germs in this case. This was the most severe of twenty-five cases treated by this method, with one exception, to which the writer was called in consultation on the sixth day of the disease, the patient, a boy five years of age, laboring under profound systemic poisoning, dying, two days after being subjected to the treatment, the latter having been employed only as a *dernier ressort*. It is but right, however, to state that the failure in this case was largely due to the mother, who, in spite of the nurses' protestations, would persist in lowering the upper window-sash "for fresh air" on each successive night of treatment, with the result of counteracting the best efforts of the medical attendants and securing the death of her son by heart-failure.

From the writer's experience the treatment of diphtheria and scarlet fever complicated with diphtheritic exudation, in the throat or elsewhere, by this method, will certainly afford to all who may adopt it reason for congratulations on the mental relief that will come to them in the assurance of success in every case of diphtheria to which they may be called, more particularly in respect of children under six years of age who may become the subjects of this most fatal of infectious diseases.

In conclusion, your attention is specially invited to the description of the method employed for the application of this remedy in all the cases treated. The requirements are :

1. A kerosene or gas stove, removable to any part of the sick room or ward at pleasure.

2. A *quantum sufficit* of your refined North Carolina tar and turpentine.

3. An ordinary porcelain lined iron kettle of the same dimensions as to circumference as the burner.

The treatment has usually been inaugurated with from a pint to a quart each of your best tar and turpentine, according to the size of the utensils, the kettle to be kept one-quarter full while in use, the degree of atmospheric saturation to be regulated by raising or lowering the wicks or increasing the number of burners, according to the number of cubic feet of air space it is desired to saturate. It must be distinctly understood, however, that the success of this method depends largely upon its adoption at the earliest practicable period after the inception of the disease, for it may be stated positively, from the writer's personal experience, that the chances are very largely diminished after the supervention of general systemic poisoning.

It was hoped the remedy might prove efficacious in that scourge of early childhood "membranous croup," but two cases in which it was recently employed with the view to determine its remedial effects, succumbed within twelve hours thereafter from congestion of the lungs, proving the efficacy of the remedy in bacterial exudations and its total inefficiency in the aseptic type of the same class.

To the members of the medical profession of the State of North Carolina here present, it is asserted with knowledge based upon experience that in the method enunciated to this Society to-day, there will be found a force that, promptly applied, will annihilate this dread disease that has been decimating childhood since civilization, with its deadly attendant, unsanitation, brought in its train the septic powers of evil with which the medical profession has had to contend, and I am present here, on this occasion, in the interests of the mothers of your noble State, bewailing the sacrifice of loved ones and will not be comforted "because they are not." The charge is given you to-day to wield this faultless weapon in their and your interests, as well as those of childhood, to the end that

there may come to each and all of you the assurance of a duty well and faithfully performed, and the knowledge of having fulfilled a service to the country at large that will surely entitle you to the benediction of "Well done, good and faithful servants," enter ye into that realm of mental and moral satisfaction that comes from a duty fulfilled and the knowledge that you have been instrumental in preserving the lives of many that must, otherwise, have been inevitably sacrificed.

DISCUSSION.

Dr. Bellamy did not feel prepared to discuss the paper. Fumes from the oil of turpentine is a remedy that has been long used by the laity. It has been his custom to use it in diphtheritic croup by placing a few drops of the turpentine on a plate, which is placed over a lamp and the fumes inhaled. He has good results from it, and believes there is something in it; however, he has also used the standard remedies at the same time that he used the turpentine.

Dr. Booth hoped there was something in it. He mentioned an epidemic during which he treated 456 cases and had 22 to die in one week. A few years later there came a mild epidemic. A physician near him said he could cure every case of diphtheria with calomel. He read an article in some journal in which the author said if the chlorides were given all cases would get well. In this epidemic his practice extended for fourteen miles along a certain creek. In this year there had been many overflows and the waters of the creek had backed up over the lowlands that bordered it. The disease prevailed along this creek to its junction with the Tar river and there the epidemic stopped. On every little tributary of this creek the disease prevailed in a most malignant form and the cases literally all died despite all efforts. Consultations and advice was sought, but it all availed nothing Coming across an article in which the author strongly recommended quinine, he commenced to give it to his patients in large and increasing doses until they showed signs of cinchonism, and all that he could get under the influence of quinine got well. He mentioned a case of diphtheria which occurred at the Orphan Asylum in which the consulting physician claimed that he could effect a cure by the use of pure oil of turpentine applied locally. The speaker thought it looked very much like burning out the disease, but they tried it and the patient recovered. After this he saw it tried in several cases with success.

Dr. Anderson asked if the cases mentioned in Dr. Martindale's paper had been diagnosed by the assistance of the microscope, and the author of the paper replied that they had not.

Dr. Joseph Graham thought it very refreshing to find a remedy that would cure all cases of diphtheria. If there is any pestilence that walketh in darkness whose way is past finding out it is diphtheria. When a young man he had been through what he then considered very bad cases, and thought that if he could see the cases within the first three days he could cure them all. It was some time before he found out how many remedies there were that would cure all diseases; but this proves that it is not the remedy that cures the disease but nature. Diphtheria according to his idea has three different stages, the incubative, the maturative stage, and there is as clear a line of demarcation between them as there is in a case of gangrene. If the patient reaches that stage where he has absorbed the poison there is no remedy that will have any effect except stimulants and nourishment, and sometimes these fail. Some epidemics are mild—and then he has seen the disease kill the patient in twelve hours, and in these cases there is no remedy that will reach the case. It is the septic infection that kills the patient and not the diphtheria.

Dr. J. Westray Battle thought we should not lose sight of the fact that diphtheria is not a local disease, but that the membrane in the throat is only a local manifestation of a general systemic disease. If we can only get to the patient in time and fill him full of quinine, he thinks it will overcome the germ that gets into the blood and drive it out. He thinks that turpentine is an antiseptic to the micrococcus and acts in the same way as quinine and iron. He understood the author to say that he used the constitutional remedies also.

Dr. Roberts mentioned an epidemic in which he treated twelve cases, and of these six died All of these six were treated with turpentine and tar inhalations. Some, he knew, were so treated from their incipiency, for the old woman in whose family they occurred had unbounded faith in the remedy. There were three cases in one house, two of which recovered; the one that died was treated with turpentine. He has almost come to the conclusion that if the patient recovered the disease was putrid sore-throat, and that if he died it was diphtheria.

Dr. Martindale expressed his regret at not being able to take part in the discussion on account of his defective hearing, but only asked that the members try the remedy, and that if they follow the rules laid down in the paper, so great is his faith in the remedy that he will *guarantee* a cure in any case that is treated before septic poisoning sets in, and believes it will relieve some of these.

Dr. Parris took the position with one of the gentlemen that preceded him that diphtheria is a constitutional disease. He has lately been through an epidemic and found that if the patient could be seen before systemic poisoning occurred and was saturated with quinine, the quinine would have an antagonistic effect. If the quinine cannot be given by the mouth, it can be administered in the form of a suppository. You can cinchonise a child through the rectum, and he has found that in proportion as you can bring about cinchonism you can successfully combat systemic infection.

Objection being raised to any further discussion on the ground that the author had closed the discussion, his consent was asked that certain gentlemen who had not had an opportunity to speak might be heard from. He cheerfully complied with the request.

The Chair ruled that the discussion must be confined to the treatment of diphtheria.

Dr. Haigh made a motion that the members be allowed as free a scope of discussion as they desired; not that he wished to antagonize the ruling of the Chair, but owing to the importance of the subject he thought it desirable to hear as much as we could.

The motion was lost, and the Chair announced that the discussion must be confined to the treatment.

Dr. Weaver gave his experience in a case the diagnosis of which was confirmed by other physicians and by the sloughing throat. He was called in consultation, and when he first saw the case the exudation was filling the posterior nares. He at once instituted the treatment by turpentine vapors, keeping the room filled with the odor of the turpentine for seven days. At the same time he adopted a plan of stimulation. The boy was very weak but recovered, and he attributed a great deal of the success to the turpentine vapors in the house.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,
GEO. GILLETT THOMAS, M. D., " } Editors.

☞ *Original communications are solicited from all parts of the country, and especially from the medical profession of* THE CAROLINAS. *Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the* JOURNAL, *by sending the address to this Office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and accept ability. All remittances must be made payable to* THOMAS F. WOOD, M.D., *P. O. Drawer* 791, *Wilmington, N. C.*

SPECIAL ANNOUNCEMENTS TO OLD FRIENDS AND NEW—REDUCTION OF THE SUBSCRIPTION PRICE OF THE NORTH CAROLINA MEDICAL JOURNAL—IMPROVEMENTS FOR THE COMING YEAR—THE JOURNAL FROM JUNE, 1892, TO DECEMBER, 1893, FOR $3.00.

It has long been the desire of the NORTH CAROLINA MEDICAL JOURNAL to produce a better Journal for less money. The difficulties have been very great, but after fourteen years of earnest work, we find our subscription list profitable enough to divide the profits with our subscribers, by reducing their subscription to $2.00 a year.

Let not our friends imagine that such profits have been large. For years the JOURNAL was a bill of expense, and it has been only within a short time we have been encouraged to reduce our subscription. Beginning with January, 1893, the subscription price to those who pay in advance will be $2.00 a year. No North Carolina Doctor need say hereafter that he cannot afford to pay for it, as we give 64 pages in unleaded type for such a sum—that is 764 pages large octavos for $2.00.

We came into the field under the greatest discouragements, but have seen our work live for nearly fifteen years—a far longer time than any monthly magazine in any department of literature has lived in North Carolina. Other periodicals have come and gone since then, but as long as the medical profession in our State is a united body, and lend us the aid they are now giving us (which, by the way, is not more than one-third that are able to do), we will endeavor to sustain what for years has been the only Medical Journal in the Carolinas.

OLD DEBTS.—There are many past due subscriptions on our books, and we would be pleased if those indebted to the JOURNAL will correspond with us about a settlement. They will find us liberal and ready to balance and start again on the most favorable terms. If all would comply, we could easily start out with a brand new dress. This ought to be enough to awaken our friends to interest in their own JOURNAL.

CÆSAREAN-PORRO OPERATION IN DEFORMED PELVES.

We present in this JOURNAL a classical case of Cæsarean section, with the modifications by Porro, related by the distinguished operator Dr. Cornelius Kollock, of South Carolina, saving both mother and child. Of course we admit this to be the ideal operation, as it accomplishes precisely what all obstetrical surgery aims at—saving life. We can also admit that the days of embryotomy and craniotomy are doomed, in the light of the advanced stage of

knowledge of the surgery of the abdomen and pelvic basin. The antiseptic methods in use, varied by one and another operator, but all based upon the same principle is easily mastered, and the surgical technique can be stated in definite terms, subject, of course, to the exceptions which must be made in the ever varying cases. Unfortunately, though, all physicians are not surgeons, and the vast majority who can do some very good work under the moral support and encouragement of clear-headed assistants, would shrink from any effort at individual responsibility in an emergency requiring an abdominal section. A higher grade of education, it is not likely, will overcome this, but in a small degree, for all men are not Kollocks. It is very plain, though, that by the accumulation of successes in these cases the time will come that those interested will not easily give their consent to the destruction of the unborn infant. The advance of surgery reaches, at last, the ears of the country farmer, and he demands that his local doctor must be able to do for his wife what he has read of others doing, and the masters in obstetrics will relegate craniotomy to the realm of unjustifiable surgery. This last opinion was enunciated with emphasis by the Professor of Surgery in the University of Virginia in his regular course of lectures, and ought to be taught in all medical schools.

A Cæsarean section for deformed pelvis offers a better field of success, inasmuch as the operator would have a longer time of warning, thereby enabling him to secure everything necessary for the operation, as well as the assistance of medical friends.

In a successful case reported by Dr. Gaillard Thomas in the *American Journal of the Medical Sciences* (*Medical Record*, 1892, Vol. xli, No. 20, p. 534) he delivered a male child weighing ten pounds fifteen ounces, and it is noted, in passing by Dr. Thomas, that the present success of the Cæsarean operation is so great that he frankly admits he should not feel warranted in performing laparo-elytrotomy. He also gives preference to chloroform as an anesthetic in such a case.

Every number of the *British Medical Journal* and of the *Lancet* brings news of the spread of small-pox in London, the fruits of the anti-vaccination crusade in the great metropolis.

REVIEWS AND BOOK NOTICES.

A Text-Book of the Practice of Medicine for the Use of Students and Practitioners. By R. C. M. Page, M.D. New York: William Wood & Co., 1892.

The works on practice go on multiplying as though the best one had not yet been written—nor has it. Many look at a hundred dollars worth of Ziemssen on their shelves getting a little the worse for faded covers and penetrating dust, having given up the hope long ago, that in these promising volumes they have reached the *ultima thule* of Practice.

The more condensed treatises show an author's teaching capacity better than the encyclopediac volumes, and he who undertakes to write a "Practice" in these days of numerous books, must be confident that he has apprehended the necessities of those who must be his readers, and that he is able to master a subject well enough to state it in clear and concise language. The author of this volume, meeting with the classes of practitioners who throng the New York Polyclinic every year, has written just such a book as he deemed to be most helpful to them.

The volume opens with a chapter on the heart and blood-vessels, and no chapter could be more important to the general practitioner. In 68 pages he condenses all he has to say about the heart and arteries, beginning with the heart in health, the external topography, schematic diagram of the circulation, a diagram showing the location of the valves of the heart, are among the illustrations, and they are highly appropriate to the text. Treatment is fully given, even the formulæ themselves being freely intercalated, a feature that will strongly commend it to the practitioner.*

*The author states on page 68 that a patient shown him by Dr. Laurence Johnson was apparently cured of thoracic aneurysm by quiet in bed for nine months. The reviewer knows this patient very well, and would like to correct an inaccuracy in this statement. He remained in the recumbent posture eighteen months, taking iodide potassium all the time. The patient had no return of symptoms for five years after, and is still at his daily work with comfort and considerable vigor. Another patient under the care of the same physician made very good progress for three years, but by imprudence was wrecked in the convalescence.

The reader will think none the less of this little volume when he recognizes in the successful New York Professor the veritable Capt. Page, of Page's Battery, who won the distinction at the Battle of Gettysburg as to call forth a special order from Gen. Lee. But New York City is *the* cosmopolitan city, and no previous condition stands in the way of a man's advancement there if he has merit. Of what other city can we say this?

PYE'S SURGICAL HANDICRAFT: A Manual of Surgical Manipulations, Minor Surgery, and Matters Connected with the Work of House Surgeons and Surgical Dressers. Revised and Edited by T. H. R. CROWLE, F.R.C.S. New York: E. B. Treat, 5 Cooper Union, 1892. [Price $4.00.]

This is really a manual of minor surgery, as its title indicates, and is easy for consultation, owing to the abundance of paragraphic synopses plainly printed in the margin. It has much in it that all surgeons will be glad to have at their finger's ends in time of need. It is not devoted exclusively to surgery, but includes matter upon emergencies, drowning and poisoning, and a section on tooth-pulling, adding much to its bulk, but little to its rank. While the volume is not without merit, it is unnecessarily bulky and expensive.

A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS: Its Pathology, Diagnosis and Treatment, with Chapters on the Anatomy of the Kidney, Albuminuria and the Urinary Secretion. By HENRY B. MILLARD, M.A., M.D. Third edition. New York: William Wood & Co., 1892.

One who goes to this volume to learn the best and most reliable matters appertaining to the chemistry of the urine, the pathology and treatment of albuminuria, will find it carefully and reliably stated. It is very interesting to follow the author through his experiences with the various tests for albumen which have come and gone, and how that finally the nitric acid test, heat, the nitric-magnesian, Tanret's double iodide of mercury and potassium, and the phenicacetic acid and potash test of the author are the ones on which he relies. The tools of a master workman are few, the sciolist changes his mind and adds a new weapon every time he reads a medical journal, and so we find that this volume, in its third

edition, has little or no dead matter. It is beautifully printed, and worthy of a perusal by every practitioner, however great his experience in this line.

OUTLINES OF ZOOLOGY. By T. ARTHUR THOMSON, M.A., F.R.S.E. New York: D. Appleton & Co., 1892.

Entering into every academic course leading up to the study of medicine, Zoology should take its place. The author of the volume is Lecturer on Zoology in the School of Medicine, Edinburgh. The book is 7¼x5 inches, 641 pages, fully illustrated.

The classification is simple, and the illustrative cases are interesting, being selected from the familiar or curious animals. The author designed his book to serve as a manual for students in the lecture-room, museum and laboratory, and is based upon his manuscript notes. We can heartily commend it to teachers and pupils.

Dr. MARTINDALE'S PAPER.—By a slip of the editor Dr. Martindale's paper was not noted in the body of the Transactions of the Society, but is printed in full in this JOURNAL.

TREATMENT OF POISONING BY COCAINE.—Eloy gives the following directions for the treatment of acute poisoning by cocaine. The patient is placed in a horizontal position in order to prevent syncope, and his face bathed with cold water. If convulsions come on, cold should be applied. If asphyxia is present, flagellation, massage and artificial respiration are resorted to, and if the respiration depends upon the tetanic contraction of the respiratory muscles, inhalations of chloroform are employed. For the intense pallor it is well to give inhalations of nitrite of amyl. Should these means prove insufficient, it may be well to administer strong coffee or caffeine, or if swallowing is impossible, hypodermic injections of ether. The entire object of the treatment is to moderate the reflex excitability of the nervous system, to sustain the heart and to reëstablish the equilibrium of the circulation.—*The Boston Medical and Surgical Journal.*

CURRENT LITERATURE.

MEDICINE IN FICTION.

We laughed when Mark Twain proposed to deliver a course of lectures upon chemistry before the Royal Society, adding that he was "in a position to do this with greater freedom, because he knew nothing about the science," but the public do not laugh at but take in all seriousness the medical incidents and opinions scattered up and down the pages of the novels and poems which so commonly deal with medical matters. What with the medical books which everybody now-a-days feels it his duty to peruse, and the quack advertisements which force themselves upon his attention wherever he turns, it is impossible to avoid collecting a curious amount of medical information of a sort which is certain to find its way sooner or later from the end of the pen of the ready writer. This is perhaps not to be wondered at, considering how large a place ailments and modes of treatment occupy in our thoughts and interests. The freedom with which the novelist discusses these questions is of course due to the principle which led to Mark Twain's droll suggestion, though it is not acknowledged with such charming *naïveté*. As every man is expected to be a fool or a physician at 40, a novelist can hardly be blamed for assuming the latter character, and he usually does assume it with startling confidence.

One of the strange medical things in *Monte Cristo* is the way in which the old revolutionist, Noirtier, manages to live on paralysed in every part of his body except his eyelids, which he winks freely. Yet the old fellow reasons acutely, and finds no difficulty whatever in swallowing food or drink. Dumas seemed absolutely unaware that such paralytic condition as he describes in Noirtier's case involved of necessity brain damage of the most serious kind. Elsewhere Dumas made a guillotined head speak and weep. In one of his tales in the volume, *Les mille et un Fantômes*, there is a story of a man engaged in making experiments on heads fresh from the guillotine in the Reign of Terror. The doctor is shut up with a sack of fresh heads in a little mortuary chapel, when a voice from one of the heads calls him by his name—Albert. "It was the head

of Solange; I thought I was going mad. I cried three times, Solange, Solange, Solange! At the third time the eyes opened, looked at me, let two tears fall, and darting forth a dim light, as if the soul were escaping, they closed never to open more." Then there was Krook, the "Lord Chancellor," in *Bleak House*, who went off the earthly stage by spontaneous combustion. Dickens might well be excused for falling into an error which was at that time commonly believed in by the people who ought to know better. Bulwer Lytton went in for medical marvels in *Zanoni*, but as he was a student of mystic lore, and actually learned magic from a professed thaumaturgist, the Abbe Constant, his wonders were attributable not so much to his ignorance of medical science as to his belief in the elixir of life and the transmutation of metals.

In *Called Back* we have the blindness and subsequent cure of the hero, and the mental aberration and subsequent recovery of the heroine. There really was some medical knowledge displayed in both these "cases." The peculiar blanching of the heroine's skin after her shock was not at all badly conceived; her partial loss of contact with the outer world was not an ill-contrived symptom, though the facility with which she moved about, and posed like a sane person before her lover, quite lifted her case out of the region of the actual medical world as known to physicians.

It is not surprising that even George Eliot, with all her knowledge of the innermost workings of the human mind, should have lost her way when dealing with the morbid changes of mind and brain. Tito's father, Baldassare, had been a great scholar, but after a long illness his memory upon recovery became a perfect blank; he could recall nothing of his scholarship, though he had not forgotten who he was; with all this Baldassare is not represented as having lost his reason; he remembers his past life, but he can no longer read or write or recall any of his scholarship for which he had been so distinguished. It was not amnesia nor agraphia with which he was afflicted; it was a form of cerebral disease known only to the eminent novelist.

Wilkie Collins made a specialty of his medical knowledge, and it was upon this account that he was induced to undertake an anti-vivisection novel, which he published under the name of *Heart and Science*. The work was equally unsatisfactory both to the persons who inspired it and to the general public. The vivisector

may be clearly enough conceived in the novelist's mind, and if his laboratory were the only stage on which he acted the drama of life would be easily dealt with; but the vivesector in the ordinary relations of life—more especially as the family physician—is another character altogether, and cannot readily be made to fit the circumstances necessary to make a good sensational novel. Wilkie Collins's effort in this direction was a complete failure, and his medical men and his wonderful drugs could never have existed outside his own imagination.

In Dickens's *Tale of Two Cities*, where Sydney Carton substitutes himself for the condemned Evremonde, we have premonitions of the chloroform which was to be discovered 50 years later—the chloroform of popular imagination, however, and by no means the $CHCl_3$ of the *Pharmacopeia*. The poets are, if possible, even worse offenders in the matter of their death-scenes than the novelists. A man pulls a 2-drachm phial of some poison from his breast, swallows the contents, proceeds to make a 200-line speech without a pang or a gasp, staggers gracefully backwards to a conveniently-placed seat, drops upon it, clasps the region of the heart with both hands, and dies after a little convulsive movement of the legs. Another is run through the chest with a sword, he falls after some appropriate "business," but he usually raises himself to a sitting posture and makes a speech full of the most beautiful sentiment, sighs deeply and dies. Heart disease, too, carries off heroines in a fashion quite unknown to doctors, and, although it is of the variety known as "broken-heart," has characteristics which must not be generally associated with fracture of so important an organ.

The matter has its serious aspects, for novels occupy an important position in the literature of the day, and form almost the sole mental pabulum of half the mothers of England, especially amongst the well-to-do classes.—*Brit. Med. Jour.*

Resorcin in Gastric Ulcers.—Pope uses resorcin in a dose of five grains three times a day in cases of gastric ulcer. It is both antiseptic, analgesic and hæmostatic. Its analgesic property being the most valuable, enabling the stomach to tolerate food. He has also given it with advantage in gastric cancer.—*Boston Medical and Surgical Journal.*

NOSTRUMS FOR INEBRIATES.

We publish in another column a letter from the physician who claims the parentage of the "gold-cure" for drunkenness. This gentleman claims a somewhat smaller percentage of "cures" than do the proprietors of some other secret nostrums who go so far as to avow the principle of "no cure, no pay." The chief proprietor of the "gold cure" announces his intention at no distant time to appeal to the profession in what is considered "the proper manner." He has had a good many years to consider the advisability of doing so. The proper manner is to state what his "cure" is, and how it is to be used; but that might interfere with the operations of the syndicate, who, Dr. Kerr intimates, are asking the modest sum of £150,000 for their secrets. A long and melancholy experience of these secret cures should by this time have taught mankind how to estimate such claims at their true value. The antagonism of strychnine and belladonna to inebriate craving is no secret, and the profession have had the means of studying the limits of its usefulness. If Dr. Keeley has any other antagonism to disclose it will be to his credit not to delay taking the "proper means" of making its name and nature known. Thus far his methods are not those which an honourable profession can countenance. The very name given to the "cure" breeds suspicion, for experience of the double chloride of gold and sodium has not shown it to possess any such antagonism. Moreover, we are informed that in the report of the Committee on Nostrums, Proprietary Medicines and New Drugs, presented to the American Association for the Study and Cure of Inebriety, on December 4th, 1890, published in *The Quarterly Journal of Inebriety*, Hartford, Connecticut, U S. A., Dr. S. W. Abbott, Health Officer of the State Board of Health of Massachusetts, stated that the report of Dr. F. Davenport, the State Analyst, gave "the Keeley double chloride of gold cure" as showing no reaction indicating the presence of even a trace of gold. It is possible that this is not always so, for secret preparations are not always necessarily identical or uniform in composition. Thus the "cure" comes before the world tainted with a manifold suspicion from the mercenary and speculative character of the financial proposals which accompany its introduction into this country; from the concealment of the "menstruums" in which the chloride of

gold (if any) is suspended; from the discord between the published analyses and the market name of the nostrum so highly vaunted; and from the striking failures and deaths among the very "cures" heretofore most prominently boasted. The element of "secrecy," however, if not professional, may prove profitable to Dr. Keeley, as it has to Holloway, to Morrison and to other secret medicine vendors. *Omne ignotum pro mirifico* is a maxim of which the vendors of well-puffed proprietary nostrums have always had an affectionate estimation; and Carlyle's census of the fools encourages them to maintain it. Some men who ought to know better will, no doubt, be caught by the philanthropic verbiage with which the bargain is clothed.—*Brit. Med. Jour.*

HOT PACK IN FEVER.—Bremner (*N. Y. Med. Jour.*, May 28th, 1892) describes a method of applying a hot pack which he has found very efficacious and convenient in the treatment of enteric fever, scarlet fever and measles, especially in children. A blanket just large enough to envelop the patient completely is folded lengthwise twice, and then rolled into a moderately tight roll. Two ounces of good soap are boiled until dissolved in two quarts of water, and this boiling solution is poured slowly into the centre of the roll, which is struck from time to time to facilitate thorough saturation. The blanket is then placed on a bed or on a part of the patient's bed prepared with a waterproof sheet covered by a dry blanket and rapidly unrolled. As soon as the blanket has become cool enough to be borne, the patient is wrapped up, with the arms enclosed, first in the wet and then in the dry blanket. The dry blanket, which should be double, must be carefully secured round the neck with a safety-pin, and well tucked in at the feet, to which a hot-water bottle may be applied if they tend to be cold. If the room is cold the whole may be covered with another blanket. A cold wet handkerchief or ice-bag is applied to the head. The pack is kept on for one or two hours, according to the temperature and the feelings of the patient. The effect is to reduce temperature, to remove delirium or coma, and to induce sleep. The pack should be repeated twice or thrice daily until the temperature remains permanently below 101° F. When removed from the pack the patient should be rubbed gently with a soft towel and replaced in ordinary bedding. The advantages of the method are said to be that it is more agreeable to the patient and to the friends than the cold pack, and reduces the temperature as effectually.—*Brit. Med. Jour.*

CORRESPONDENCE.

FORCIBLE RAPID DILATATION OF THE OS TO INDUCE LABOR.

Messrs. Editors North Carolina Medical Journal:

On the morning of June 29th I was called four miles into the country to see a woman who had been having convulsions since midnight. I arrived about half-past five o'clock, at which time she, a very heavy, plethoric woman, was having a convulsion every fifteen or twenty minutes. Term not expired by a week. Os just enough dilated to introduce *one* finger with ease—*two* by using *force.*

I at once ruptured the membranes, gave a hypodermic of one-third grain of morphia, elevated the hips by slipping a heavy pillow under the nates (and this is important), had the husband to give chloroform and proceeded to make *forcible* dilatation with my "Obstetrical Rapid Dilator."

Within an hour I was able to apply Barnes' Forceps, *above* the superior strait, and in an hour and a quarter I had delivered the mother of a *healthy, living* child, in good condition. The mother had several convulsions while the dilatation was being done, during which of course I withdrew the blades, and *one* after the child was delivered, since which time there has been no return, and at the last report I had of the case, dating two weeks from the time of delivery, both mother and child were doing well.

I believe that I could have done this dilatation in *one-half* the time had the emergency demanded it, but believing the vital powers of the woman sufficient to justify my disposition to conservatism, I operated with more deliberation and gave the encircling fibers of the os ample time to yield to the stimulus of the dilating blades.

H. S. Lott, M.D.

Winston, N. C., July 14th, 1892.

"The work of science is to substitute facts for appearances and demonstrations for impressions."—*Ruskin.*

CURRENT NOTES.

THE late Dr. D. Hayes Agnew left an estate of about $250,000. He bequeaths to the University of Pennsylvania $50,000, his work on surgery, his library and anatomical collections.—*B. M. & S. J.*

SIR WILLIAM AITKEN, the author of "Aitken's Practice," died in June. He was a very expert pathologist, and produced, without doubt, the best text-book of its day on the Practice of Medicine. Even now it has very few equals for the use of the medical student.

PARKE, DAVIS & Co. have sent a handsome souvenir of the late meeting of the American Medical Association, showing the great extent of their laboratories, offices, warehouses, etc., etc. This great firm have won success step by step, and may well be proud of it. The book is oblong, beautifully printed and illustrated.

TINCTURE OF GELSEMIUM has a high value in the treatment of chronic cystitis. Combined either with benzoate soda or alone, in proportions ʒ ij to ʒ iij to ℥ vj water. Warm and inject about an ounce into the bladder morning and night comes as near giving relief as any remedy we have tried. This is nothing but the endorsement of an old remedy.

CHOLERA has been reported from Russia and France in the daily papers, and it is in order to renew vigilance to prevent the introduction of the disease into the United States. The Inter-State Notification agreed upon by the Conference of State Boards of Health on this Continent will serve a very practical purpose in the control of it should it reach America.

VALUABLE PAPERS ON PHARMACEUTICAL SUBJECTS:—Spiritis Aetheris Nitrosi; General Results of Analysis, Volumetric Analysis, Nitrometric Methods—all by Dr. Charles O. Curtman. Qualitative Examination of Baking Powders, by Claude C. Hamilton, M.D., Ph.G.; Practical Pharmaceutical Notes, by Francis Hemon, Ph.G.; Applied Pharmacy, by Wm. Mittlebach; Pilulæ Catharticæ Compositæ, and Sensitive Iodine Preparations, by G. H. Chas. Klie. These papers were courteously sent in advance to the members of the Committee of the Revision of the Pharmacopœia for 1890, by the Mo. Pharm. Association. The senior expresses his thanks.

WOMEN PHYSICIANS.—Dr. S. Weir Mitchell, in his recent novel, *Characteristics*, says: "I did not believe it was best, either for the sick or for society, for women to be doctors; that, personally, women lose something of the natural charm of their sex in giving themselves either to this or to the other avocations until now in sole possession of man." Women doctors "fail to realize what they have lost. The man who is sensitive to womanly ways sees it. It is worse than nursing the sick, for even nursing makes some women hard."—*N. Y. Medical Journal.*

PERFORATION OF THE UTERUS BY THE CURETTE.—Lannelongue (*Arch. de Tocol. et de Gynec.*, May, 1892) employed the curette for a woman, aged 64, a 4-para. The patient had total prolapse, with metritis. After dilatation the irrigating curette was used; it seemed to pass indefinitely far without resistance, and the injected fluid did not return. As perforation was evident, vaginal hysterectomy was at once performed. The uterus was very flabby, and had been perforated at the angle between the body and the neck. The patient recovered. In a second case the patient was 31, also a 4-para. She had endometritis and slight salpingo-ovaritis. There was cystocele, rectocele and ruptured perineum. After dilatation the irrigating curette was used. In scraping the right cornu it was noticed that the injected fluid ceased to return, yet the instrument did not seem to have passed beyond the uterine cavity. As the patient was young and perforation not absolutely certain, the uterus was not removed. The cavity was swabbed, the cervix, much hypertrophied, was amputated and colpoperineorrhaphy performed. By the second day the abdomen became distended; next day stomatitis set in and poisoning by sublimate was suspected; on the tenth day diarrhœa occurred with albuminuria. On the nineteenth day erysipelatous patches appeared on the forehead, and the patient died; a soft, solid tumour had developed in the abdomen. The enlarged, flabby uterus was found full of pus, and there was purulent peritonitis as well. The perforation in the right cornu was distinct. Lannelongue believes that when the uterus is perforated by the curette before the scraping has begun, the uterus must be amputated, as the danger of septic peritonitis from fragments of diseased endometrium is great. If the curette does not pierce the uterus till the process has nearly finished, the uterus may be saved, especially if the patient be young.—*Brit. Med. Jour.*

A Rhode Island Law for the Prevention of Blindness.—A law has recently been passed in Rhode Island similar to those in New York and Maine, part of which is as follows: "Should any midwife or nurse, or person acting as nurse, having charge of an infant in this State, notice that one or both eyes of such infant are inflamed or reddened at any time within two weeks after its birth, it shall be the duty of such midwife or nurse, or person acting as nurse, so having charge of such infant, to report the fact in writing within six hours to the health officer, or some qualified practitioner of medicine, of the city or town in which the parents of the infant reside."—*Boston Med. and Surg. Jour.*

READING NOTICES.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning.
For catalogue, write Rochester Lamp Co. New York.

Surgical Dressings.—The respective advantages of dry and moist dressings have received much attention of late. A point was made concerning dry dressings which did much to decide operators in their favor. We refer to the quality possessed by some of them of adhering closely to exposed surfaces, thus making an impervious, antiseptic covering, beneath which the reparative processes may uninterruptedly take place. This adhering property is observed in a marked degree in Europhen, which has attained a high reputation as a cicatrisant. Europhen, too, is a bulky powder which may be spread to advantage over large denuded surfaces in cases in which it would be dangerous to employ iodoform. The antiseptic and stimulating properties of Europhen have, no doubt, contributed greatly to its success, for its cresolic component promptly shows a characteristic action. The iodine contained in Europhen goes off slowly, thus preventing the toxic action so often recognized in preparations of iodoform, and making frequent dressing unnecessary, while its solubility in the liquified products of inflammation add to its effectiveness as well as its safety. In the lesions of syphilis, in ulcerated surfaces, burns and all traumatisms, this new dressing has done admirable work. Europhen has undoubted advantages over iodoform in being free from disagreeable odor or toxic influences; but it must possess sterling qualities as a dressing quite apart from these characteristics, for it is already widely used by surgeons, though quite new to modern surgical therapeutics.

Caleb W. Winslow, M.D.

Just as this number of the JOURNAL was about to be issued

Dr. Thomas F. Wood,

its senior editor, passed away, after twenty-four hours of suffering, the climax of his fatal disease, under which for six years he has patiently waited for God's summons. He is at rest, and multitudes of good words and works do follow him. He has builded for himself, by his humble, trusting, Christian life, a home in that mansion prepared for the elect in Christ, and has left behind him a monument in the gratitude and love of those to whom his life and labors were a blessing and an example.

NORTH CAROLINA
MEDICAL JOURNAL.

THOMAS F. WOOD, M.D.,
GEO. GILLETT THOMAS, M.D., } Editors.

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ORIGINAL COMMUNICATIONS.

BIOGRAPHICAL.

Caleb Winslow, M.D.

Caleb Winslow, M.D., the sole surviving member of the original Board of Medical Examiners of the State of North Carolina, was born in Perquimans county, North Carolina, on January 24th, 1824. His parents were Nathan and Margaret Fitz Randolph Winslow, who resided near Belvidere, Perquimans county, a settlement of Quakers, to which denomination they belonged.

The boyhood of Dr. Winslow was passed upon his father's plantation, where he acquired that knowledge of farming and love for animals and outdoor life which has been one of his characteristic features ever since. He attended the best schools which the neighborhood afforded until he was 16 years of age, when he was sent to Haveford College, Pennsylvania. After graduating at this institution he returned home, and for a time engaged in teaching school

and in surveying. It was during this time that his future calling was determined as the result of an accident. Having fractured his clavicle, his attention was directed to the study of medicine, and he accordingly entered the University of Pennsylvania and graduated in 1849. Returning to North Carolina, he settled in the town of Hertford, Perquimans county, where he soon acquired an enormous practice. He soon became widely known as a skillful surgeon, and grave surgical cases in large numbers came to him from far and near. In the operation of lithotomy he became especially expert, and his record of 99 operations with but one death, was for a long time the best in the world. This is the more remarkable when we remember that his field of labor was in the country, with imperfect appliances for successful work, and often with very insufficient and unskilled assistants. In other branches of surgery his results were also extremely successful.

It was no uncommon thing for him to be waylaid and unexpectedly required to perform various surgical operations. Upon one such occasion he was surprised to find a party under a tree by the road-side, waiting for him to pass that way. The patient had been transported some distance and brought to that place to have an amputation of the leg performed. With the woods for an amphitheatre and the heavens for a canopy, the operation was successfully performed, and all parties to the transaction went on their way rejoicing.

Dr. Winslow many years ago anticipated the modern operation of trephining the skull for traumatic epilepsy. Having been called to a man who suffered from epileptic seizures, which were attributed to an injury to the head, he removed a button of bone at the seat of injury and cured the patient.

At the close of the civil war he removed to Baltimore, Maryland, where he still resides. Finding the surgical field occupied by such men as Nathan R. Smith and Christopher Johnston, he devoted his energies to the acquisition of a general practice, and in a short time was in great demand as a family physician. He enjoyed the confidence of the public to a remarkable degree in the department of obstetrics, and in one year attended 366 women in labor—actually more than one case for each day of the year. After more than forty years of arduous toil, he has now retired from the practice of his profession.

With a vast and varied clinical experience and a mind exceptionally stored with useful information, it is much to be regretted that the subject of this sketch found so little time and inclination for contributing to the literature of the profession. Shrinking from publicity of every kind, he devoted himself untiringly to the practice of medicine, seeking to do that which was right rather than by any equivocal means to gain the attention of the people.

Dr. Winslow became a member of the Medical Society of North Carolina at the session held in Edenton in 1857. He was an active supporter of the MEDICAL JOURNAL OF NORTH CAROLINA,* and contributed to its pages at an early date.

He was chosen in 1859 to be a member of the first Board of Medical Examiners. We have before us some pencil notes, written at the time by Dr. Winslow, relative to this meeting.

"This Board of Medical Examiners met in Raleigh on the 6th inst. [May, 1859] and organized by electing Dr. James H. Dickson of Wilmington, President, and Dr. Iredell† Secretary. With a view to a more thorough preparation and efficiency, special branches of medical science were assigned to each member of the Board, to wit: Physiology and Medical Hygiene, to Dr. James H. Dickson; Obstetrics, to Dr. Charles E. Johnston; Materia Medica and Therapeutics, to Dr. W. H. McKee; Surgery, to Dr. Caleb Winslow; Chemistry and Pharmacy, to Dr. C. Happoldt; Practice of Medicine, to Dr. Otis F. Manson, and Anatomy, to Dr. J. G. Tull."

Dr. Winslow's estimate of the then new movement in North Carolina, as contained in this paper, in the light of succeeding years, was just and to the point.

"It was the object of the Legislature," he writes, "in the appointment of this Board, to put a check to medical ignorance, whether it come in the shape of quackery, or recommended by a diploma never earned. The facility with which many medical schools grant diplomas renders it still more necessary that our State should protect her citizens from the horde licensed to kill."

*The first series began in 1858 under the editorial management of Dr. Edward Warren then of Edenton.

†Dr Iredell was not a member of the Board, but chosen as Secretary from without, as was the custom until later.

HYPERTROPHY OF THE LYMPHATIC GLANDS OF THE PHARYNX AND NASO-PHARYNX

By C. P. Ambler, M.D., Asheville, N. C.)

(Read before the Buncombe County Medical Society, May 2, 1892.)

The lymphatic glands of the pharynx and naso-pharynx are probably more often the seat of some pathological change than any other group in the body.

That this should be true does not seem at all strange when we think of the predisposing causes to which they are constantly exposed.

The lower animals have glands corresponding to those we refer to, but in these we never find the glands in a state of hypertrophy.

No doubt our habit of eating hot and cold foods alternately plays an important part in the cause of the enlargement. How frequently we see boiling hot coffee served with ice-cream, but we never think at the time of the influence such extremes have over the circulation of a part.

If we dressed at all times and seasons with a rational idea of what dress is for, not protecting a part well at one time and exposing it the next, but always with an idea to regulate radiation from the body, to keep it about the same at any point, always avoiding the sudden, rapid radiation from a part where usually it is only moderate, we might, in a measure, be as fortunate as the lower animal. Just why any one group of glands should be selected as the seat of the change we do not know, but it is fair to presume that the same cause which produces a cold at a given point may be at work here.

Bosworth states that heredity seems to have considerable influence, he having observed, for instance, hypertrophied pharyngeal tonsils in several children of the same family where the father or mother had the same trouble. We might ask if some error in the mode of living in the parents might not have caused their trouble, and the child following their footsteps developed the same.

The glands of the pharynx and naso-pharynx are arranged so they form a complete circle, the position of the ring being almost vertical. "Beginning above with the pharyngeal or Luschka's tonsil, it extends to the orifice of the Eustachian tubes, where are situated a large aggregation of follicles, the tubal tonsil. Turning

downward along the posterior edge of the soft palate, and around the posterior pillar, it reaches the facial tonsil and returns across the base of the tongue in a similar manner, to the naso pharynx." We say glands, but this is a misnomer; none of these bodies have either ducts or outlets, and hence are not, strictly speaking, glands.

The most important aggregation of follicles are the facial, pharyngeal and lingual. So much has been said in regard to the facial tonsils, and they are so easily inspected and operated upon, that we shall not take them up to-night, but confine our remarks to the pharyngeal and lingual. We might say, though, that what holds true in regard to hæmorrhage from the facial does not in the others. They sometimes bleed freely for a few moments, but never as persistently as in the case of the denser facial. Of the whole group, the pharyngeal is the most difficult of inspection and access.

A rhinoscopical examination is the best means of diagnosis, but where this fails or is unsatisfactory, a digital examination made, and the soft, flabby structures once felt, one will always be able to satisfy himself whether present or not.

Bosworth gives an easy and effectual method of diagnosis. He throws an albolene spray into the nares, and if it freely finds an exit on the opposite side in a cloud, as it comes from the atomizer, he is certain he has no obstruction in the naso-pharynx. On the other hand, if the obstruction is considerable, but not enough to cause stenosis, the greater part of the spray will find its way into the throat, and only a little will appear from the nares. This might be conclusive if we were certain that we had no deflections, and that the anterior nares were equally free.

The gland is situated high up in the median line on the posterior wall of the naso-pharynx. The degree of enlargement is varied. The cases usually do not come to us before it has reached a point where the respiration is interfered with.

A peculiarity of the gland is that it may be quite large one day, and not more than half as much the next. The surface may be smooth, or the enlargement may be of the class called by Mayer, "Adenoid Vegetations." The symptoms in a measure correspond with those of hypertrophic rhinitis, but it is well to remember that hypertrophic rhinitis is a disease not often found in childhood, while hypertrophy of the pharyngeal tonsil is a disease of childhood proper. If left alone and allowed to run its course, the enlarge-

ment will generally disappear about the age of puberty, but the conditions set up have by this time become worse than the original trouble itself. Congenital cases have been reported, but rarely do cases occur before the age of three.

Persistent nasal catarrh is almost a constant symptom, but cases have been reported where there had never been any discharge, although the trouble was well advanced. The discharge is usually a thick, white, viscid mucus, being blown from the anterior nares. As soon as the respiration becomes restricted the more apparent symptoms quickly result. Mouth-breathing, with all its evil effects, from the idiotic expression to deformity of the chest, may follow, if the case is severe and long-continued.

Different writers put the per cent. of ear complications from 15 to 60 of the cases; this occurs not alone from pressure upon the Eustachian tube, but also because the air in the middle ear is not changed as frequently and readily as should be. Swinburn states that "in 179 cases of middle-ear disease 27 had adenoid vegetations."

As before stated, the results of nasal stenosis are as varied as the cases have numbers. The influence upon the voice is one of the most interesting. The voice being what Mayer calls "The Dead Voice," "m" and "n" become "eb" and "ed". The voice loses its nasal resonance, cannot be educated for singing or clearly speaking, and if the case is allowed to make a "spontaneous cure" at puberty, the voice never recovers from the restriction and hindrance experienced during the developing age.

When the enlargement is not so great as to obstruct the nasal passages but only moderate, the voice may be normal in the lower register, but upon attempting a higher note in singing, will fail entirely. This is simply explained by the fact that in the lower or "chest notes" the nasal chambers are not used, but for the higher, free nasal chambers are essential.

The prognosis is good, even if ear complications are already appearing, provided the treatment is radical enough. There are cases where radical treatment cannot be employed, but wherever we are compelled to resort to sprays and mild applications, the case does not progress favorably.

The practice of making applications to the whole pharyngeal vault with a bent probe wrapped with cotton, saturated in silver or iodine solutions, can only be condemned, as the continued applica-

tions necessary will only set up troubles, which are as much to be avoided as the original

The applications and operations should be confined to the hypertrophied tissue itself, and if this cannot be made with some certainty, the case is better let alone. We occasionally find a patient who can keep the palate relaxed and allow us to make our examinations and applications without any trouble. Such cases are the great exception, especially in children where most of the work must be done. If the child is young and cannot be controlled, the operative procedure by curettement, under ether, is the best. Bleeding is sometimes profuse, but it will stop spontaneously in a moment. We need not fear the kind of hæmorrhage we get in the more dense facial tonsil, as the connective tissue never developes here as in the facials, and we never have the calcareous deposit.

The treatment will never be thoroughly done if the palate is not perfectly controlled, and I have never seen any good accomplished with palate retractors. They are not well tolerated, slip easily, are in the way and do not accomplish their object. Tying up the palate is much to be preferred, is more effective and causes no inconvenience to the patient. The nares are first sprayed with a 2 per cent. solution cocaine, a small smooth ribbon is inserted into the eye of a fine, soft catheter, just enough to hold it, both are covered with vaseline, and catheter, with ribbon attached, passed through the nares downward and backward. The catheter and ribbon appearing in the pharynx, the ribbon is seized with forceps, drawn from the catheter, catheter removed and the two ends of the ribbon tied together. Both sides are treated the same way, and we then know there will be no danger from contraction of the palate. The locality to be operated upon is now painted over with a 10 per cent. solution cocaine. If the sharp curette is used, one sitting is all that will be necessary, but with electrolysis, two, three, and sometimes four, will be necessary. The electrode can be introduced either post-nasal or through the anterior nares, the platinum point pressed against the most prominent part and the current turned on. The point is allowed to bury itself according to the size of the enlargement; this is repeated two or three times, and if the condition is such as to warrant it, a deep furrow may be burned through the mass, remembering all the time that we are working in close proximity to the base of the brain; and we must be careful as to the amount of

reaction caused. The current must not be turned off until the electrode is being removed from the surface, otherwise it will firmly adhere, and when pulled away hæmorrhage will follow. This, however, holds true in all cautery applications.

Again, care must be used not to overheat a platinum point in the nares, when the point is not in contact with the membrane, or we will have following our operation a diffused inflammation extending throughout the cavity.

The lingual tonsil is situated between the epiglottis and the papilla of the tongue; these follicles were for a long time thought to be enlarged papilla. The follicles can rarely be demonstrated before puberty; the enlargement is slow and gradual, the patient not being aware of it. When enlarged they can sometimes be seen by direct inspection or felt by digital examination, but the laryngeal mirror is always to be preferred. Anatomically they resemble the pharyngeal tonsil, the surface being nodular and the fissures not becoming obliterated as the case progresses.

The symptoms are more numerous and misleading than occurs in hypertrophy of any other of the group. Among the most common symptoms are :

1. Sensation of some foreign body in the throat.
2. Constant desire to swallow—constituting the so-called "empty swallowing."
3. Difficulty of speech.
4. Interference with deglutition.
5. Catarrh.
6. Inability to produce high, clear notes.
7. Cough.
8. Asthmatic attacks.

The first is a most constant and annoying symptom. The sensation is not experienced while eating, but the constant feeling that "something has lodged there" is often a factor in bringing the patient to the physician. If the gland is considerably enlarged and interferes with the free motion of, or encroaches upon the epiglottis, deglutition will be interfered with, and the voice sooner or later altered; pain and feeling of pressure will also be complained of. The changes in the voice result from mechanical obstruction, and the interference with the free movement of the muscles of the tongue and larynx. The cough is short, sharp and spasmodic, this

being purely reflex and entirely different from the cough, which expels a collection of mucous from the larynx. The discharge is a thick, tenacious, semi-transparent, gelatinous-looking mass.

Treatment does not vary from that mentioned in other glands, except that the galvanic cautery is given the preference in a larger number of cases.

EFFECTS OF ALCOHOL ON THE SYSTEM.

C. M. Poole, M.D., Craven, N. C.

(Read before the Rowan County Medical Society, July 4th, 1892.)

So much has been written and dilated upon by modern writers and lecturers on the effects of alcohol, that it would seem we should by this time fully understand the history of its voyage through the human system and the influence it exerts over the tissues of the body.

It would seem almost a satire upon civilization to speak of the injurious effects produced by it when it is remembered that, next to water, it is used more than any other fluid by immense numbers of civilized people. It is the physician, however, who is called upon to treat the diseases thus produced in the human economy, and it is, therefore, his duty to speak plainly on this subject, and show to the world the ravages of this fell destroyer when used to excess.

When the physician attempts to study the action of alcohol on the system, especially when he calls to his aid the study of physiological laws, he finds that it supplies no new matter, and that it supplies but little or no force to living matter. He finds, too, a long list of diseases whose origin depend entirely upon the inordinate use of alcohol.

Nor does he only find that physical disease and physical death are caused by it, but in many cases mental disease and mental death are the result. Ethylic alcohol is the basis of all intoxicating drinks, and it is by a study of its physiological action on the system that we approach most closely to the diseases originating from its use. It is an intoxicant of chemical composition C_2H_6O, and when used to excess is capable of inducing the most systematic and appalling phenomena of disease.

FIRST STAGE.

Alcohol may be administered in different ways. It may be introduced by the stomach, by subcutaneous injection, per rectum and by inhalation of vapor. The effects produced on the functions are the same, no matter by what mode administered. It is said that 30 grains of alcohol to the pound weight of the animal body will produce intoxication, while double that amount is productive of immediate danger. Increased action of the heart is the first symptom produced. Observation has shown that the heart's action is increased from fifteen to seventeen beats per minute. The period of rest between beats is shortened, though not as much so as might be inferred, for the contractions are sooner over. When alcohol has been taken continuously for a time and then suddenly discontinued, the heart will be very feeble. It is, therefore, not surprising that the brain and muscles, which depend upon the heart for their blood-supply, should be languid and require the rest of long sleep for renovation. At first the vital functions strive mightily to maintain this normal condition, but if the strain is kept up, sooner or later they, too, will flag, the result of which is a complete physical wreck. While the heart is laboring under the influence of the alcoholic stimulus the peripheral circulation is quickened and there is an observable change in shades of color in exposed parts. It might be supposed that these changes only occur in parts exposed to view, but, on the contrary, they are alike throughout the whole body. The blood-vessels of the brain, lungs, kidneys, and all vascular organs, are alike injected and the parts engorged.

The changes in color, which are only temporary in the novitiate, become confirmed and permanent if the alcohol be continued for a long time.

The bloom on the nose is the mark by which the confirmed toper may be recognized. We have said that the first effect of alcohol is to increase the action of the heart. Physiological research has served to explain why this is so and why the minute blood-vessels are so much injected. Instead of acting directly upon the heart and causing increased motion and power of that organ, there is simply paralysis of the organic nervous supply of the vessels which constitute the minute vascular structures. This being the case, there is less resistance offered, and the heart, being thus liberated,

quickens in action, dilating the paralyzed vessels, causing injection and engorgement of the same. These phenomena constitute the first action of alcohol on the system, and might well be termed the stage of excitement.

SECOND STAGE.

When the effects of alcohol are carried beyond the first stage other changes are induced in the nervous system, more especially in the cerebro-spinal system. It is impossible to say at present whether these changes are due to the direct action of alcohol upon the nervous matter, or whether it is simply due to the modification of the circulation in these parts. Be this as it may, we do know that there is a deficiency in the power of coördination of muscular movement. This is caused by a loss of nervous control over the muscles. If the battery be applied at this stage the response will be feeble, and, the more fully the system is brought under the influence of alcohol, the less will be the response to the galvanic stimulus. These symptoms mark the effect of alcohol on the system in the second stage.

THIRD STAGE.

Next in order the upper portions of the brain become implicated. These being the centres of thought, the mind soon loses its equilibrium and the man is no longer rational. At this stage we frequently find these persons extremely passionate and emotional, the animal instincts showing up very conspicuously. At last there is failure of the senses—insensibility, sleep and utter muscular prostration and relaxation. If examined at this stage, there will be found a very decided decline in the temperature of the body which is said to have fallen as low as 93½° F. It might be supposed that the decline has just taken place at this stage, but, on the contrary, it has been going on through all the three stages of intoxication. It is true that in the first stage there is increased heat where there is increased peripheral distribution of blood and increased radiation, but while this is going on there is a decline in the temperature of the mass of the body. This decline goes on from hour to hour until it brings us down to the

FOURTH STAGE.

This stage is marked by extreme collapse of the muscular organs

under the control of the volitional nervous centres. While in this condition there are observed at times strange automatic movements of the limbs which seem not to be controlled by any of the centres of volition, nor are they produced by any external stimulus. They are simply strange involuntary movements, which show that there is still some life in the spinal cord. The centres that supply the muscles of respiration and circulation seem to remain faithful to duty longer than any others, and when the end is death, it has been observed that of these the muscles of respiration fail first, the heart being the last to give way. Upon the slowness of action on these two centres lies the safety of the patient in administering large doses of alcohol. Were the action of alcohol uniform on the body or on the nervous centres, it would be extremely dangerous for any one to take it to the degree of intoxication. When the intoxicated live through the fourth stage the temperature may fall even lower than stated above, but, after diffusing through all the tissues, the alcohol escapes by elimination, slowly relieving the living centres, the result of which is a gradual return of power. This, then, brings us to the end of the symptoms observed in intoxication.

We might state, however, that alcohol, when taken in excess of the natural demands of the system, tends to overtax the oxygenating capacity and prevents complete oxidation of the proteids, which weakens the vital forces and develops diseased conditions. It is not *per se* a poison, but by preventing transformation of the proteids nutrition is much impaired. Its continued use has a very deleterious effect upon the blood vessels constituting the minute circulation and upon the blood itself, especially the red corpuscles. Microscopical research has shown that they become irregular in form—that they shrink and are notched at their margins. It has shown, also, that there is an excess of fatty globules and that oxygen is absorbed with much less freedom.

Alcohol also acts injuriously upon the membranes of the body. Cases frequently occur in the experience of every physician where the skin, the peritoneum, the periosteum, the conjunctiva have taken on diseased action entirely due to the abuse of alcohol. The different membranes of the body all have their respective functions to perform. Anatomists centuries ago held that their offices were simply to hold the different parts of the body in their natural and respective positions and to give mechanical support. It is known,

however, that this is only a part of their office, that they are really the natural filterers of the body, that they guard the ingestion and assimilation and elimination of all substances whatever. Now, when, from the inordinate use of alcohol, the mechanism of these membranes is interfered with, it will necessarily follow that the process of filteration will be inequately performed. This being the case, the proper nourishment of the part will be impeded The nourishment of the body depends entirely upon these membranes in their integrity. In some cases, from the continued use of alcohol, they are rendered so porous and relaxed as to allow the colloidal fluids of the blood to escape. The result is, the body slowly, but surely, dies. In other cases the membranes become thickened and loaded with foreign matter. The natural fluids then fail to pass through them; the result is, in some instances there is accumulation of fluid in closed cavities, while in others there is a dryness between membranes and substances inclosed where there should be free lubrication. There may be hypertrophy or atrophy, or, if there be no change in mechanism, there may be inactivity from anæsthesia. Either of these would interfere with their natural functional power.

Dr. Tuckerman claims that the cell metamorphosis is hindered, that the nutrition is impaired, and, as a result, the function of the cell is lessened. Investigations reveal the fact that alcohol induces a distinct change in the contents of the nerve cell. This is reasonably the retention of effete matter whose elimination is hindered.

When we consider the functions of brain cells, especially of the anterior lobes of the cerebrum, controlling the passions, instincts and appetites. Defects in this function mark the loss of self-control, and in so far as they exist constitute mental alienation. The clinical aspect of a case of chronic alcoholism presents the results of this defective inhibition in numerous ways. The energy or reserve force of the cells is exhausted or hindered till continued mental effort is greatly weakened.

Dr. Waugh says the victim of chronic alcoholism is in such a state of physical and mental weakness as to be illy able to withstand the onslaught of any disease. He is usually a man having the appearance of robust health, but a careful scrutiny will reveal this to be a delusion and a snare. His bloated and rubicund visage, his ponderous abdomen and his full but soft fleshy parts, are no more the indication of strength and vigor than is the padding of a

Punch and Judy character. His digestive apparatus is in a state of chronic irritation, and it has for so long a time been accustomed to excessive stimulation that it no longer responds to ordinary irritation, and in the case of disease refuses longer to receive food, or even the fiery draughts which have been the patient's ruin. It is not difficult, therefore, to see why the most systematic phenomena of disease are invited. The power of resistance in all parts of the body is very much reduced, and when the toper is attacked with disease his chances of recovery are correspondingly reduced.

ACID NITRATE OF BISMUTH IN GLYCERINE is a specific in microbic skin diseases.—*Curtman.*

FIVE CHILDREN A LARGE NUMBER IN A FAMILY.—Dr. Skene notes in his magnificent work on Diseases of Women that five children in a family in the United States is considered a large number. His work will be read everywhere, and we would just like to add some information which the gifted professor could not possibly have obtained except by a visit to the South The writer can count many families of his own acquaintance in which there are from 7 to 12 children. In one family there was celebrated a birth-day for every month in the year, in two months there was a double celebration, there being 14 children and not enough months to go around. At the rate of 5 children to the family we would be a very long time making good our losses in the war; as it is we are making rapid strides. Our streets and public places, sea-side resorts, and wherever you may go, the merry voices of throngs of children greet the ear. Nothing is more evident to the stranger who comes in our midst than that the Malthusian doctrine has not penetrated the depths of our pine forests Sterility to Southern women is the same grievous misfortune that it was to the Jewish wives of old. The writer has never had more than one or two appeals made to him to procure an abortion, and one of these was from a resident of a higher latitude.

REPORT OF THE CHAIRMAN ON GYNECOLOGY.

By M. H. Fletcher, M.D., Asheville, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

The advances in gynecology during the past year have been few and mainly toward conservatism. When so eminent an authority as Dr. Thomas, in his recent edition (1891) on "Diseases of Women," (page 491), speaking of the advisability of evacuating pus or serum, says: "If, in spite of the sero-purulent collection, the patient be doing well and does not suffer from the local trouble, it should be left to empty itself spontaneously." If Dr Thomas can advise such a course, we may well use the word conservative without feeling any sense of reproach.

Considerable discussion has taken place recently in regard to draining the uterus and as to which is the better method, although it has not been exactly in the line of progress, because Wylie has for ten years been teaching the value of divulsion, curetting if necessary, and draining by means of a hard rubber grooved bent tube, with bulb on the end to hold the instrument in place for the cure of endometritis.

Polk and others have revived interest in this line of treatment by advocating packing with iodoform gauze after divulsion and curetting, and even go so far as to advise curetting where, in addition to the endometritis, we have salpingitis and cellulitis—certainly a very dangerous procedure, when we are taught, and it is an established principle in gynecology, that it is a dangerous practice to pass a sound even, where we have a cellulitis. Twice in my own practice I have lit up a new latent trouble of this kind by passing a sound, once resulting in general peritonitis and death. While the principle in the treatment is not new, the revival of interest in, and the frequent discussion of, a method which has so much to recommend it, will result in good, especially so because the treatment is so far superior to the methods that are usually practiced in these cases.

In regard as to which is the better method of draining the uterus,

the rubber stem, in my judgment, has a decided advantage over the method of packing with iodoform gauze because it is more cleanly, easier applied, and does not reqnire tc be changed so often.

The routine of gynecological treatment such as the applications of iodine, iodized phenol, etc., is being discontinued, much to the relief of the patron, the patient and the doctor.

The advantages of position of the patient in the treatment of pelvic congestions as well as the Trendelenburg posture during suprapubic operations within the pelvis, has attracted some attention. We have all been taught to take advantage of position by elevating the nates and lowering the shoulders, while giving hot douches for the purpose of clearing up pelvic exudates, and knew of the advantages of rest and the recumbent position to relieve dilatation of the pelvic veins; but it remained for Emmett to suggest the value of further relieving the venous dilatation and increasing the return flow of blood by simply raising the foot of the bed 15 to 18 inches.

The Trendelenburg posture consists in raising the pelvis so that the symphysis forms the highest point and the body comes on an incline of at least 45° to the horizontal. The viscera of the abdominal cavity will gravitate towards the diaphragm and the pelvis will become free and easy of access. The small intestines will hardly come into view and will not trouble the operator during the operation. The operator can see and secure the bleeding points more easily. The posture is claimed to be of great advantage to weak and anæmic patients, preventing shock from acute anæmia of the brain. Chloroform seems to be the preferable anæsthetic to use owing to the fact that ether tends to congest the brain, which is already low. To secure this position it is necessary to procure a chair or table adapted to its use, by means of which we cange the position during the operation if necessary. It is especially desirable to change the position during irrigation in order to prevent the irrigating fluid from flowing toward the diaphragm.

Abdominal and vaginal hysterectomies have been performed a number of times during the year with a reduction of mortality, owing to greater skill acquired by the operators and to improvement in the technique of operations.

The advocates of abdominal hysterectomy urge the operation chiefly for fibroma, fibro-myoma and puerperal peritonitis. There

are still differences of opinion as to whether the stump should be treated by the intra-peritoneal, the extra-peritoneal method, or should be extirpated. To one who is a little acquainted with operations of this kind there is much that we cannot satisfy our minds about. One man of eminent authority will make a plea for "early hysterectomy and puerperal hysterectomy," and says: "We are rapidly advancing to accept early operation as a dictum in pelvic and abdominal surgery. I can find no delight in so-called conservative methods. My experience disproves and condemns them. It will become an axiom in surgery not to delay longer than to establish the fact that operation will be necessary at some time. To establish this latter fact is the question which troubles us. How can one satisfy himself that for a fibroma it will become necessary to perform hysterectomy some time during the patient's life, or that it will become necessary to remove a septic uterus." On the other hand, an authority equally as eminent will say: "Too many needless mutilations; not enough conservative gynecology. This is an age in which unscrupulous and unreasoning operative boldness, more or less helped out by antisepsis, too often takes the place of true surgical knowledge."

Vaginal hysterectomy for cancer of the uterus has more to recommend it than the suprapubic operation. We can be reasonably sure of a diagnosis; it is easier performed. The death-rate from the immediate effects of the operation is almost *nil* in the hands of some operators. There are some who still advocate high amputation of the cervix. The concensus of opinion now, however, is decidedly in favor of removing the whole organ whenever the diagnosis of malignant disease is clear. It is very little more dangerous than high amputation, and it affords greater immunity from relapse. In malignant disease of the body of the uterus total extirpation is the only means of relief, and should be performed as soon as the diagnosis is made and confirmed by the microscope. It is futile to operate if the disease has invaded the broad ligaments and extended beyond a point where ligatures can be applied; we must, however, recognize a difference between cancerous and inflammatory infiltrations of the broad ligaments The operation should also be avoided where the cancerous affection has involved the vagina or tissues about the rectum and bladder to any considerable x tent. There is still some controversy as to which is safer, the

ligature or clamp, but I notice that most of those who advocated the clamp a year ago now use the ligature.

It has been in tubal and ovarian diseases that conservative surgery has made its greatest gains. Fewer tubes and ovaries are being removed. The slightly cystic ovary has been spared; at least reports of the operations have failed to find their way into the journals.

For the relief of reflex, nervous and mental derangements Battey's operation has lost its hold on the profession. The ultimate results recorded from the operation do not justify it. A large number of observers fail to ascestain results after a lapse of several years. For the cure of dysmenorrhœa, neurasthenia and hemicrania, no matter how closely these troubles may be connected with the menstrual function, the removal of the ovaries is not justifiable. For follicular ovaritis, catarrhal salpingitis and for pelvic salpingitis, the subject will bear a little investigation. For hystero-epilepsy, where the attack occurs at or about the menstrual period, and by thorough examination we are able to detect diseased ovaries, the patient's mind does not become affected, and we are reasonably sure that the disease is dependent on the function of ovulation and menstruation, the operation is justifiable and should be performed.

Brodwitz, from a thorough study of the ultimate results of castration, arrives at the conclusion that in cases of general neurosis (hystero-epilepsy and epilepsy) the ovaries simply share in the central trouble, and hence castration cannot be expected to give permanent relief; moreover, subsequent indurations and adhesions may increase the original irritation. The ordinary sequelæ of castration are molimina, congestions, cardiac disturbances, flushing and vertigo, together with a diminution of the sexual feelings in about two-thirds of the cases. Melancholy and forgetfulness are quite common, which may culminate in more pronounced psychoses.

Doléris believes that about eight-tenths of the women operated on have submitted needlessly to mutilation, which, according to his figuring, would give a result of four thousand women in Paris deprived of their ovaries or uteri without a sufficient cause.

Dr. Byron Robinson, of Chicago, puts the whole subject in a nut-shell. He says: "The test for ovariotomy should be pathology. Let every ovary removed be submitted to a competent pathologist, and soon there will arise a more decided standard. Let the patho-

logist be the man to give advice to the extreme laparotomist and the slow conservatist. We generally remove organs for some pathological cause. I fail to see why the ovary does not come under the ordinary rules. If it does not, it is high time for special pathology to come to our aid."

The treatment by means of electricity has not made much progress during the year. In fact, much of the discredit that is cast at electrical treatment is due to the fact that too much has been claimed for it by the enthusiast who rushes frantically along every new road at the speed of electricity. For amenorrhœa, lack of general or local nerve tone, neuralgic dysmenorrhœa, chronic ovaritis and ovaralgia, for some cases of uterine fibroma, for cases of non-purulent inflammation around the tubes and uterus, and associated with a dislocation of these organs, electricity deserves a continued trial. At best, it can only be considered an adjunct to other modes of treatment. When used with care it has its dangers, is painful, slow, does not always produce the desired results, and is often only a palliative measure. Keith claims further progress in electrical treatment of fibro-myomata. He claims that in 19 cases out of every 20 it relieves pain, brings about a diminution of the tumor, stops hemorrhage, the results are permanent and the growth of the tumor, if it be not lessened, is stopped. Then Brandt's gymnastic treatment with massage of female pelvic diseases has received some attention at the hands of the profession during the year. While it has not been as successful a mode of treatment when practiced by others as by the author himself. We know, as Brandt claims in his opening paragraphs on "Treatment of Diseases of Women," that gymnastic treatment in general is recognized as very useful, makes the entire body stronger and healthier, and heals a number of different local affections in which medical treatment was useless. Why would it not be good in the treatment of diseases of the pelvic organs? The advocates of the measure claim to cure retroflexions and versions of the uterus, pelvic exudations and adhesions, prolapse of the vagina and rectum. It seems reasonable that non-purulent inflammatory affections of the pelvic organs could be cured by mechanical stretching and loosening of the pathological cicatrices and adhesions. Kumpz, of Vienna, who has investigated the Brandt method and received special instruction from the author himself, claims that laparotomy in fixed retroflexion of the uterus

is not justifiable unless it is preceded by a rational massage treatment. To make the treatment effective, it seems that two conditions are necessary, one of which is a positively certain diagnosis; the other a technical mastery of the method, which cannot be acquired but from instruction by a competent teacher. Like electricity, this method of treatment is slow, tedious and painful. Life is too short for the general practitioner to become proficient in either. For my part I am willing for the specialist to have them both.

The tendency of the day is toward specialties in medicine. The specialist is inclined to become confined to his branch of study and attribute to, or persuade himself to believe, that every trouble he meets with is in some way dependent on trouble connected with his specialty, and is apt to ignore the human system as a whole. The best all-around gynecologist is he who has been and is a good general practitioner. Dr. A. B. Mott contended in 1880 that no one ought to begin a specialty till he had been in general practice for at least ten years. One of the best articles that has appeared on this subject during the year is by Dr. Ethridge, of Rush Medical College, in which he claims that too little attention is paid to the subject of general medical treatment of our gynecological patients. The gynecologist is apt to associate nervousness, headaches and backaches with diseases of the womb entirely, and will overlook nervousness arising from an imperfect capillary circulation in some part of the nervous centres, notably in the spinal cord, and that it is very often associated with deficient excretion from the skin, kidneys or bowels, and with defective cardiac action. The weak heart shares a great deal more in producing this symptom of nervousness than is generally accorded to it. Renal insufficiency, also the presence of a superabundance of uric acid, are potent factors in producing these symptoms. One of the most common of gynecological patients that we meet with is the vast class presenting constipation, dyspepsia and anæmia. Constipation can derange more lives with nervousness than any one pathological condition that can be named. A sudorific or a diuretic will make many nervous patients less nervous.

INFRA-PERITONEAL DISPOSITION OF THE PEDICLE IN SUPRA-VAGINAL HYSTERECTOMY.

By Joseph Graham, A.B., M.D., Charlotte, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

The specimen which I present for your inspection to-day consists of the Ovaries, Fallopian Tubes and Uterus, with a number of fibroids, weighing twenty-six pounds, and removed *en masse* by a method recommended by Dr. James R. Goffe, of New York City, and styled by him, *A New Method; The Intra-Abdominal, but Extra-Peritoneal Method, of Disposing of the Pedicle in Supra-Vaginal Hysterectomy for Fibroid Tumor.* The removal of uterine fibroids by abdominal section is a subject of the greatest importance. And operators are divided into two schools—one preferring to treat the pedicle by the intra-peritoneal, and the other by the extra-peritoneal method. On account of the character of the tissues composing the stump, and the very great danger from hæmorrhage and sepsis when it was dropped within, advocates soon arose for securing the pedicle in the abdominal wound. But although *better* results have attended this method, on account of its removal from the peritoneal cavity, still the mortality which has thus far followed it, even in the hands of the most experienced and skillful operators, must exclude it from the pale of safe operations.

And even should the patient escape with her life through a tedious confinement, rendered exceedingly unpleasant and uncomfortable by the gradual sloughing of the stump in the abdominal wound; yet, even then, she is liable to be overtaken by many or all of the unpleasant features which go to make up the undesirable sequelæ of this plan of disposing of the pedicle. Not least among these may be noted the liability to hernia at the location of the stump—the interference with the functions of the bladder, as well as the dragging of the stump in the abdominal wall. And last, but not least, besides all these disadvantages, we cannot fix the stump in the abdominal wound without violating that broad principle of abdominal surgery which teaches us to "restore all the parts, as near as possible, to their proper relations with each other before

closing the wound." So there can be no question that, if supra-vaginal hysterectomy is to have a valuable future, the stump must be disposed of more nearly in its natural position than by fastening it in the abdominal wound. Goffe's operation of intra-abdominal with infra-peritoneal disposition of the pedicle, of which I am about to report you a successful case, I think comes nearer to the perfection of a mode than any I have seen recommended.

About the 15th of March, 1892, I was requested by Dr. D. O'Donoghue to see with him, at the Good Samaritan Hospital (an institution kept up for the colored people by St. Peter's Episcopal Church of Charlotte, North Carolina), Mary Hunter, who had been under his care for some time on account of menorrhagia, and numerous other discomforts, from an abdominal tumor, which had recently increased rapidly in size. He and several other physicians had already examined her, and the majority agreed with him that *some* operation by abdominal section was the only thing which promised the patient any chance of relief.

From the patient herself I elicited the following history: Aged 24 years; unmarried; never pregnant; born in Alamance county, North Carolina, of healthy parents; began to menstruate at about 13 years of age; function normal, painless and lasting about three days. When about 19 years old she observed an enlargement in lower portion of her abdomen, which increased very slowly for the next three years. The menstruation, however, began to be painful, and lasted from a week to ten and twelve days, and was sometimes quite hæmorrhagic.

For the last two years the tumors had increased much in number and size, producing pain in left hypochondrium and frequent painful micturition from pressure. The growth had now reached the size of a pregnant uterus near to the end of eighth month of gestation Carefully examining the abdomen, I found a number of hard tumors, varying much in size—some floating at the ends of longer, and others from shorter pedicles, but all clustering around, and some apparently forming part of, what I was satisfied was the uterus. That portion of the tumor in lowest part of the abdomen was practically fixed, and could not be lifted—nor was it susceptible of much motion from side to side.

Per vaginam I found cervix uteri of normal size, quite low in pelvis and incapable of lateral motion. Passing a sound, I found

it to enter to the depth of about four and a half inches; and turning it in different directions, proved the uterus to be a part of the general tumor. There appeared to be no adhesions of any consequence, but the mass was firmly locked in the pelvis on account of its great irregularity.

I now placed the patient in the knee-chest posture, and even then, although using considerable force, found it impossible to dislodge the tumor from the pelvic cavity.

My diagnosis was multiple fibroids of the uterus. And on account of her sufferings and rapidly increasing helplessness, I advised hysterectomy for the removal of the whole mass. Her already unwieldy size, together with great soreness of the abdomen, precluded any hope of relief by establishing artificial menopause by means of Tait's operation.

My proposal for operation was very readily accepted by the patient as a message of hope. And accordingly on Tuesday, March 22d, 1892, with the assistance of my partner, Dr. S. B. Jones, Drs. Will. A. Graham, D. O'Donoghue, H. M. Wilder and R. L. Gibbon, I operated. Dr. Wilder very kindly and skillfully administered the anæsthetic, which was chloroform. The bladder having been catheterized, the vagina was washed out with soap and water, followed by a solution of bichloride of mercury, and the abdomen was thoroughly cleansed in like manner, except there was a neglect to shear off the hair—a neglect which we had cause to regret in the after-treatment.

Everything being now in readiness, I cut rapidly through the linea alba, and opening the peritoneum, came upon a nest of multiple fibroids of various sizes and different lengths of pedicles. Having observed before beginning the operation that several quite large tumors seemed to float from longer pedicles, I had hoped to be able to deliver the mass *seriatim* through a six-inch incision, but in this I was mistaken, and found it necessary to extend the cut nearly to the pubis and about one and a half inches above the umbilicus, before I got room enough to deliver the mass outside the abdomen, and even then I only *partially* succeeded, after rocking it from side to side trying to unlock it from the pelvis. The tumors were so numerous and involved the uterine substance so low down, that it was impossible to lift the mass outside the cavity till after it had been severed from the stump. Expecting to treat the stump

infra-peritoneally and find no adhesions of the bladder to the tumor, I now made an elliptical incision *through the peritoneum* across the front and posterior surfaces of the tumor successively, and dissected the peritoneum down below the internal os uteri.

An elastic ligature was here thrown around the mass, including appendages and uterus; and, being pushed down to the bottom of the posterior and anterior flaps, it was securely fastened by a strong pair of clamp forceps. Amputation was now performed just above the elastic ligature, and the tumor removed. But before I could transfix the pedicle the elastic ligature slipped on account of the shrinking of a small tumor located very low down, which had been partly included in it, and quite a free hæmorrhage ensued from the enlarged arteries and veins.

An assistant introducing his fingers per vaginam and pushing up the stump, the broad ligament was quickly in hand, and the bleeding vessels secured by means of catgut ligatures. Now, carefully freeing the pelvis of all blood, the pedicle was transfixed, within the flaps, with strong Chinese twisted silk, and tied on either side of the cervix, like the pedicle of an ovarian tumor, each knot being cut short. I believe, now, however, that it would have been better to have left one long end to this ligature, and have passed it through the cervical canal into the vagina for its more easy removal after the accomplishment of its work.

The stump had been cut so low down to get below all fibroids, that it needed no trimming. From now to the completion of the operation I followed so nearly Dr. Goffe's directions that I quote much of his exact language in describing it. Now, beginning at the upper border of the left broad ligament, the raw surface was covered in by an over and over continuous stitch of fine silk-worm gut down its entire width; then, over the top of the stump, the peritoneum having been closely and firmly stitched, the suture was continued up the width of the right broad ligament to its free border; so that the bottom of the pelvis presented only a smooth peritoneal surface with this continuous line of silk-worm gut suture running across from side to side.

On account of the accidental hæmorrhage and the consequent delay the peritoneal cavity was thoroughly flushed with boiled water at about 110°, and also a hot, weak solution of bichloride of mercury. This last was used by mistake, and I was unaware of it

till I noticed some sequelæ some days after the operation. After all this was thoroughly dried out and the toilet of the peritoneum completed, the abdominal cavity was closed by means of silk sutures, which had been thoroughly prepared antiseptically by Dr. S. B. Jones. The dressings consisted of iodoform gauze, layers of absorbent cotton and a roller bandage of bichloride of mercury gauze to hold them in place and give support to the abdomen.

Patient was put to bed with plenty of heat applied externally, and she rallied well, vomiting only a little from the anæsthetic. She complained, as soon as from under the influence of chloroform, of paroxysmal pains, like after pains, referred to the region of the stump. For these she had hypodermatic injection of morphine and atropia, which had to be repeated from time to time till stump ligature had had time to become loosened.

Evening after the operation the temperature was 100°; pulse 80.

May 23d, 9 a. m., temperature 101°; pulse 88.

Fearing some intestinal adhesion should take place in pelvis, I determined to give Rochelle salts, ʒ j, every two hours till bowels had acted; also hoping to relieve sepsis should temperature be due to that. Stomach was very intolerant of the salts, and, by the time for the third dose, would not retain it at all, but vomited it with a good deal of bile. Gave large turpentine enema in soap-suds—no action, but rested fairly well that night.

May 24th, 9 a. m., temperature 101°; pulse 84; stomach quite intolerant, with spitting of a good deal of frothy saliva. No good action having thus far been obtained from the bowels, I determined to give her calomel, grains x. Three hours afterwards used turpentine and yelk of egg injection—retained.

6 p m.—No action yet. Began to fear paresis of the bowel as abdomen was greatly distended. Injection of Epsom salts and glycerine, which brought a large, liquid, fecal action. Under morphia patient had quite a comfortable night.

25th, 9 a. m.—Temperature 99.⅘°; pulse 80; very much nauseated; cause not discernible.

6. p. m.—Temperature 100 ⅗°; pulse 85; nausea unabated; unable to retain anything on her stomach; nausea relieved by hypodermatic injection of morphia and atropia.

26th, 9 a. m.—Temperature 101.⅕; pulse 96; not nauseated;

dilated cervix uteri, and washed from under peritoneal flaps about an ounce of dark grumous blood, very offensive.

2 p. m.—Temperature 102°; pulse 96.

5 p. m.—Temperature 102.$\frac{8}{5}$°; pulse 100; rewashed stump with carbolic solution 1—40.

27th, 9 a. m.—Temperature 101°; pulse 110.

28th, 9 a m.—Temperature 101°; pulse 110; dilated cervix and washed out a lot of broken down slough from above the ligature—very offensive indeed.

I learn from patient that mouth and parotid glands are quite sore, and have been so from the morning of the 24th (second morning after using the bichloride solution in the peritoneal cavity, and before taking the dose of calomel); painful mucous plaques found both in mouth and vagina. This condition accounts for most of the unpleasant symptoms up to this time—some were due, as seen when the dressing and stitches were removed on the seventh day, to a small mural abscess at the lowest stitch near pubis, where we had failed to shave the hair. About the fourth day there was plenty of sloughing septic accumulation about the stump to account for the rises of temperature.

A detail of the symptoms from this time on would prove not only tedious, but uninteresting. Suffice it to say that I washed the cervix out *daily* with salt and water till the temperature stood at normal. I tried several kinds of drainage tubes, but none gave me as good results as the daily washings; these were continued for eighteen days. The ligature was removed through cervix on the 21st day. At the end of the fourth week patient was up and about her room. Since that time recovery has been uninterrupted, till now she is a well woman.

A letter from Dr. Goffe tells me has modified the operation in one case by placing a draining-tube through the stump before closing the flaps, but his patient died from shock, so that he was unable to say whether the modification was an improvement or not.

Professor Keene writes Dr. Goffe that he has done the operation also, but modified it by "ligating the uterine and ovarian arteries in the broad ligaments instead of transfixing the stump."

Both of the above suggestions had occurred to me while treating this case, and were discussed with my partner, Dr. S. B. Jones.

Some plan which will obviate the sloughing of the stump seems

to be all that is needed to stamp this the ideal supra-vaginal hysterectomy. And although it may not always be an easy matter to carry out Prof. Keene's suggestion of ligating the arteries in the broad ligaments, yet I believe it should be tried, and a V shaped metal drainage-tube, open at the upper end, inserted in the cervical canal, to remain as long as it might be needed. When it had fulfilled its mission it could be easily removed by dilating the cervix and compressing the upper end of the tube with a pair of slender forceps.

DISCUSSION.

Dr. Michael, in discussing Dr. Graham's paper, was much struck by the first remarks of the author, in which he said that, while we acknowledge that these cases had better be sent to specialists, there occur cases which are not able to incur the expense, and it is our duty to do our best for them. He thought the author had nothing to fear if this case were a specimen of his skill. He was interested in the manner of treating the pedicle. The treatment heretofore in vogue of attaching the stump to the abdominal wound is repugnant to modern surgery, and he has for a long time thought that the development of this matter must turn in the direction of the sub-peritoneal method, which has heretofore been unsuccessful. The method here represented is not altogether a novel one, the outcome of any one man's ideas, but it is the aggregation of suggestions from various surgeons He believed what was so brilliantly represented in the author's paper will in some form or other ultimately be the method by which these pedicles will be dealt with. He thought the previous ligation of the uterine arteries would play an important part in the management of these cases. He had never removed such a tumor and would undertake the task with great hesitancy. He disapproved of the idea advanced by the author of leaving the ligatures long and carrying one end through the cervical canal lest they be the means of carrying infection to the stump. He is convinced that in a simple wound-cavity there is no need for drainage under proper precautions. For some years he has almost abandoned the use of drainage for general surgery. In amputations of the breast, and even in operations where the knee-joint was opened, he has closed the wound without drainage and left the dressings on for four weeks, and thinks the treatment of the pedicle

could be carried out on the same principle without the use of the long ligature. He thought the case reflected great credit on the author.

Dr. Chambers was much interested both in the case itself and in the treatment of the pedicle He referred to the unsatisfactory method of dealing with the stump heretofore. He thought it not desirable to ligate an artery some distance from the point at which it was to be cut. As the stump in this method of treatment was where it could not be gotten at, he thought the author's suggestion of carrying the ligature through the canal quite reasonable. The ligature, however, would probably not drain much on account of the tightness of the canal. The mortality where such large tumors were removed from any part of the body was quite large, and the wonder ought not to be that so many die, but that so many recover. The treatment of this case leaves the parts very nearly in their normal relations, which is a great desideratum. It avoids the unnatural condition of having the pelvic contents bound to the anterior abdominal wall the balance of the woman's life. He thought that in time, with some modifications, it would become the universal method of treating the pedicle. He thought it the most interesting specimen of the kind he had ever seen.

Dr. Graham explained that his idea in carrying the ligature through the canal was not for drainage at all, but simply as a means for getting rid of the ligature at any earlier period after it had accomplished its object. He thought the objection on account of the danger of sepsis probably had some foundation, but the canal is open any way.

HUCKLEBERRY TINCTURE has come in for leucoplakia and other diseases of the mouth and tonsils. This time it is the European plant *Vaccinium Myrtilli*, but as we have huckleberries of many species on the summits of mountains in North Carolina and in the swamps of several tiers of eastern counties, we are constrained to ask if the huckleberries of Sampson are not as good as those of far off Europe?

HOSPITAL NOTES.

By W. W. Lane, M.D., Surgeon in Charge of the City Hospital at Wilmington, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Case 1.—Supra-Pubic Lithotomy.

In July, 1889, this patient, L. B., aged about 60 years, had an artificial urethra established in the supra-pubic region after Hunter McGuire's method, in consequence of an enlarged prostate.

The case at the time was published in the North Carolina Medical Journal. A few months after the operation the patient began to suffer symptoms of stone, and, on passing a small sound through the artificial opening, the stone was discovered.

The operation for his relief was performed by passing a long director through the artificial urethra down to the stone; a long, narrow-bladed knife was carried along the groove into the bladder; it was then removed, the finger inserted, the wound enlarged and the stone removed with the stone forceps; a rubber bag was previously inserted into the rectum and filled with water so as to push the bladder well over the pubes; this latter procedure is not now considered necessary, the Trendelenburg position being substituted in its place.

Two stones were found—phosphatic—the larger one weighing ʒ ij, the other the size of a pumpkin-seed. The bladder was thoroughly irrigated with boric acid solution and the wound in integument apposed with silk; a catheter was left in for twenty-four hours. The wound healed rapidly and kindly, and the patient was discharged with good power of retention.

It is now nearly three years since I established this artificial urethra in the first instance, at the present time the man being in the enjoyment of good health, passing his water in a fairly good stream, and able to retain it at will.

The recti muscles appear to perform the function of a quasi sphincter remarkably well.

Case 2.—Excision of the Entire Upper Extremity, Including Scapula and Part of Clavicle.

W. N., aged 54, was admitted with tuberculosis of the head of the humerus. The injury was brought about in the first instance by a fall on the shoulder. The injury resulted in several abscesses, leaving sinuses leading down to the head and upper part of humerus.

It was deemed advisable to make an effort to save the arm, and a resection was determined upon. I therefore made an incision from the top of the shoulder through the deltoid down to the bone; this revealed two or three pus-pockets in and near the head of the bone, and two or more inches of the shaft denuded of periosteum; about four and a half inches, including the head, was removed with the chain saw. The arm was dressed in the most thorough aseptic manner and strapped firmly to the side.

After the resection the disease rapidly developed in the scapula and end of clavicle. It was thought unadvisable to attempt partial section under the circumstances; so I determined to excise the entire limb along with the scapula.

The arm was first amputated through the part where the resection had been done. The axillary artery being first secured by a cord passed under the armpit and twisted over the shoulder, was then ligated. An incision was then made along the top of the shoulder and spine to the lower end of the scapula; this bone was then carefully dissected from its attachments, the blood-vessels secured and the entire bone removed. The acromial end of the clavicle being found to be involved in the disease, about two inches of that bone was removed.

The patient has recovered his usual good health, though there are now sinuses still existing, probably coming from sternum and ribs.

Case 3.—Ectopic Pregnancy.—Operation by Dr. William J. Love, July 30, 1891.

It has been very difficult to get a good previous history of this case—only the steps of the operation are here recorded.

Usual symptoms of pregnancy; fœtal motion ceased at seventh month; operation done ten months after impregnation; sac opened; fœtus and placenta removed; the latter peeling off like rotten wood;

without hæmorrhage; sac consisting of right Fallopian tube, with ovary expanded over it; the sac was removed, leaving the base crenated; sac bled only where the expanded ovary covered it; drainage-tube inserted and retained for several days; little fever from beginning to end of case; the left ovary was removed on account of the damage done to left broad ligament in breaking up adhesions, which were numerous and extensive.

Great quantities of offensive purulent matter passed daily through the tube; cavity irrigated daily with either hot salt water, carbolized water or bichloride solution, 1—4000.

By the first of November the discharge had ceased and the opening closed.

On the 6th of November she was discharged cured.

DISCUSSION.

Dr. W. H. H. Cobb regretted that he was not present when Dr. Lane exhibited his cases. The operation for the establishment of an artificial urethra above the pubes had been often done by Dr. McGuire. He did the operation some time since for enlarged prostate, and the drainage is so complete that the patient gets rid of all the evil after-effects of the operation. He thought it should be indorsed by the profession. Dr. Davis has modified the operation by putting in the bottom stitch before inserting the tube.

Dr. Galloway mentioned the case of an elderly gentleman who suffered from an enlarged prostate with retention in whom the operation was done with success and satisfactory results. He allowed the drainage-tube to remain in about two weeks. This patient urinated through the artificial opening for three or four months, after which the opening closed and the urine was passed through the natural passage.

Professor P. W. Bedford, of the New York College of Pharmacy, Editor of the *Pharmaceutical Record*, and a member of the Committee of Revision of the Pharmacopœia, U. S., died suddenly July 20th from apoplexy while in attendance on the meeting of the American Pharmaceutical Association, at the Profile House, White Mountains. Prof. Bedford served for two terms upon the Committee of Revision from 1880 to date, He was a most assiduous promoter of the interests of the Pharmacopœia, and as a teacher was highly esteemed by his confréres.

REPORT OF THE CHAIRMAN OF THE SECTION ON MATERIA MEDICA AND THERAPEUTICS.

By R. G. Noble, M.D., Selma, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

The report of the Chairman of the Section of Materia Medica can only be a reiteration of things recently published in medical journals, and your time is too valuable for me to consume in reading abstracts from the journals of cases you have already read.

Pyoktanin is an antiseptic substance derived from aniline colors, occurring in two colors, blue and yellow, and all that I shall say of pyoktanin will have reference to the blue only. It is insoluble in collodion, ether and benzine; is soluble in chloroform, in 50 parts of glycerine and 12 parts of 90 per cent. alcohol. It is also soluble in 30 parts of boiling water, and easily so in 50 parts of hot water. For most purposes, however, we require a cold water solution, which can be made of any required strength up to a concentration of 1 part of pyoktanin in 75 parts of cold water. One disadvantage in the use of pyoktanin is that the blue color masks the wound so that we cannot see what the actual condition is.

"Pyoktanin has been shown to possess great germ-destroying power, and this, in connection with its ready diffusibility in healthy as well as diseased animal tissue, makes it a very promising remedial agent, especially so as it is harmless compared to the bichloride of mercury, carbolic acid an similar substances. It is devoid of any injurious effect on the human economy if used with proper precautions."—H. J. Boldt, M.D., in *Merck's Bulletin.*

Dr. Balfour, of Monil Kan, used pyoktanin with success in a case of facial erysipelas. He used a 1—500 solution applied every four hours. He says: "Patient declared pain left in twenty minutes after first application."

Dr. A. B. McKinnon, of Fairhaven, Wash., used a solution of 1—100 on a tumor of the lip, the edges of which were reddened and everted, the centre a dirty, ulcerated-looking mass, with perfect

success. The tumor had been pronounced carcinoma by several physicians.

"In small doses, one and two-thirds to three and one-third grains, by the mouth, pyoktanin may cause malaise, nausea, certain painful sensations and a transient albuminuria. In large doses, six to ten grains, for one unaccustomed to it, it may produce vomiting diarrhœa, vesical tenesmus and albuminuria. In functional nervous diseases it produces a disturbance which may dispel or shift pain, but it does not compare in activity with analgesin."—GAILLARD, on the Toxicity of Pyoktanin, in *L' Union Med.*

Dr. W. C. Gates, of Rockland, Mich., in *Medical Age*, used pyoktanin in a case of tonsilitis, and found more and quicker relief from it than from anything he ever tried. He injected half a drachm of a solution of pyoktanin (grs. ij to ʒ i) into each tonsil. At the end of ten hours he was a great deal better, but he injected about half the quantity again, as the tonsils were still somewhat swollen.

Dr. Balfour, of Morril, Kan., says: "I consider pyoktanin of most value, surgically, in fresh or recent wounds. However, I have had decided success with its use in chronic ulcers, but not such brilliant results as in recent wounds."

Dr. Netchaïew, of Moscow, gave to three patients suffering with incipient Bright's disease three wafers, containing half-grain each. He claims complete cures in the three cases in seventeen, nine and twelve days respectively.

Rohrer, of Zurich, in the *Therapeutic Gazette*, found that by the addition of pyoktanin to the routine treatment, of diseases of the ear, by peroxide of hydrogen and boric acid prompt cessation of the suppuration, previously uncontrolled, followed.

Dr. Tiffany, of Kansas City, Mo, says: "The remedy has not been sufficiently used to establish it as so valuable a remedy as Prof. Stilling claims it to be. My experience so far has been that the good effect of this agent is especially to be realized in inflammation of the deeper structures of the eyeball."

Three cases of epithelioma of the eyelid, one of cancer of the tongue and one of primary cancer of the glands of the neck, were treated with pyoktanin. All were failures. On extirpating the growths a microscopical examination showed not the slightest change in the epithelial elements.—LE DEUTER, in *La Tribune. Med.*

Quéne found that similar injections softened the centre of tumors without in the least affecting the periphery.

DuPré employed the drug in three cases of facial epithelioma and in two cases of inoperable uterine cancer, with no beneficial effect save a lessening of the disagreeable odor.

Guthman and Ehrlich, in *Berliner Klinische Wochenschrift*, were induced to try pyoktanin in the treatment of malaria. They decided that the drug had a decided curative influence over the disease—the periodical attacks of fever ceased within a few days of the exhibition of the drug, and at the end of eight days, at the latest, all plasmoida had disappeared from the blood. They say the treatment must be continued at least eight or ten days after the disappearance of the fever. They administered the drug in doses of one to five grains, in capsules, five times a day.

The action of pyoktanin is very striking if we consider that modern synthetical chemistry has for years tried in vain to produce a substance which shall exercise a curative influence on malaria. All the modern antipyretics—first of all quinoline, then kairin, antipyrine, antifebrin, thalline, phenacetine, etc., have not come up to this task.

No unpleasant symptoms of any consequence have been observed. The sole untoward effect having been a slight spastic irritation of the bladder with increased desire to urinate, which, however, can be avoided by administering a pinch of powdered nutmeg several times a day. Naturally the urine is colored intensely blue after taking the drug, and the stools themselves become blue immediately upon access to air."

Whether the treatment of intermittent fever by means of pyoktanin will have any effect on the periodicity of malaria or guard against relapses, which often supervene also upon the quinine treatment, cannot as yet be stated. The future will have to decide the important question, as Laveran, in *Languedoc Medical*, reports two cases of patients who were suffering from malarial disease, to whom he gave the drug in the dose of four to six grains a day until they had taken about two drachms of the drug without producing any effect on the malarial organism. As the result of his experiments, he says that "pyoktanin is utterly without effect, and simply serves to color the urine blue."

Professor Stilling, of Strassburg, in *Merck's Bulletin*, the inven-

tor of pyoktanin, says "the results obtained from the use of pyoktanin in ophthalmologic practice are extraordinarily satisfactory. Conjunctivitis heals generally in a day; corneal ulcers, as a rule, in one or two days; serious cases naturally requiring a longer time, nevertheless healing in a very short time, as compared to that required heretofore under the usual methods of treatment. The eminent suitability of the name 'Pyoktanin' (English 'Pus-killer') for this group of pigments has been redemonstrated, *in still a more extended application* than that suggested by Stilling even; as, from Buckner's investigations, it appears that this group of pigments possesses the faculty of *rendering inert not only the pus-bacteria themselves, but also the toxines, i. e.*, poisonous emanations, produced by the bacteria."

Dr. Marchetti, in *Merck's Bulletin*, after extensive investigations, has arrived at the following conclusions:

1st. In ½ p. c. solution and in pencil form pyoktanin is well borne by the eye.

2d. It is an *excellent* remedy in *dacryocistitis* with denuded nasal bones; it *accelerates cure* in a surprising manner.

3d. In chronic blenorrhœa of the lachrymal sac pyoktanin proved *very serviceable* in diminishing the secretion.

4th. In extensive *corneal infiltrations* with loss of substance, and showing no tendency to heal, the action of pyoktanin is striking.

5th. In *hypopyon-keratitis* pyoktanin exerts a *surprising* influence on the suppuration; sometimes the hypopyon is gone and the ulcer has a healthier appearance after only twenty-four hour's treatment.

6th. In hypopyon-keratitis *complicated* with an affection of the lachrymal duct, pyoktanin has no effect.

7th. In a case of panophthalmia, following upon cataract, pyoktanin *arrested the suppuration.* As early as after twenty-four hours the troublesome subjective symptoms disappeared; the disease ran a slow course and assumed the character of a plastic interstitial choroiditis and iridocyclitis.

8th. In a case of panophthalmia subsequent to an injury to the coma, the application of pyoktanin (instillation of a 1 : 1000 solution, 2–3 times daily) *exceeded all expectations;* its *energy and prompt action* prevented the imminent iridocyclitis from appearing.

Dr. J. J. T. Jelks, in the *Journal of the American Medical*

Association, in speaking of pyoktanin in blenorrhœa of the conjunctiva, says: "Some of the cases have gotten well with marvellous rapidity—a few in twenty-four to forty-eight hours; again, others have gained no benefit from the remedy I am not able to tell why this should be so."

Dr. Wyethe, of Oakland, Cal., used pyoktanin in a compound fracture of the radius and ulna, not a particle of pus forming. In a case of recurring sarcomatous tumor of the cavity of the eye an application of the pyoktanin pencil prevented a recurrence. He also used it with success after the enucleation of a large epithelioma of the uterus. He says: "The remarkable success of pyoktanin in some of my surgical and gynæcological cases render it a matter of justice to report them, or at least such typical cases as may serve to exhibit the power of the drug."

Nenci, of Warochan, in *Merck's Bulletin*, reports on the successful treatment of four obstinate cases of cystitis by means of vesical irrigation with pyoktanin solutions. After employing other remedies in vain he resorted to vesical injections of 1—1000 and 1—500 solution of pyoktanin twice daily, with the happy result of effecting a cure on the tenth and fourteenth days. As early as the second day of treatment there was a marked improvement.

Dr. Masini, in *Merck's Bulletin*, says: "I made two series of *animal experiments* with pyoktanin with a view of determining its power as an antitubercular in pulmonary tuberculosis. In the first series three cubic centimeters (forty-eight minims) of a 0.2 p. c. solution of pyoktanin were injected simultaneously with sputum containing tubercular bacilli; this procedure being repeated on each of the following days. The result was that *all the animals remained healthy*.

"In the second series of experiments the injections were commenced three to four weeks *after tubercular infection had been effected*, and were continued for three days, after which the animals were killed. *In not one of these animals were there any tuberculous changes* found on post-mortem examination.

Dr. von Schlen reports in the *Wenier Medizin. Presse*, the case of a man, aged 70, with ulcerating chancroid, in which he had *remarkable success* with pyoktanin. The tumor was situated in the middle of the cheek and was as large as a two-cent piece. Pyokta-

nin in substance was applied and kept *in situ* by means of plaster and glue.

"Within five days the secretion had already diminished considerably and the ulcer was flatter. The dressing was now renewed twice weekly, later but once a week. The surface of the ulcer rapidly cicatrized until, after two months treatment nothing was left of the chancroid save a slightly discolored scar."

Prof. A. Caccherelli, of the University of Panna, used pyoktanin in malignant neoplasms with almost negative results. In sarcoma of the lower jaw it caused an arrest of growth, but no reduction in the size of the tumor. In recurrent epithelioma of the eyelid and cheek there was no spread of the ulcer while under treatment. In one case of cancer of the breast injections of pyoktanin had no effect on the progress of the disease, while in another the same treatment completely arrested epithelial proliferation and relieved the pain.

In rodent ulcers, treated with pyoktanin-collodion, there was no healing, but the patient's condition improved considerably. In a case of epithelioma of the lip two month's application of pyoktanin-collodion (1 to 30) seemed to check the progress of the disease and improve the local condition.

Dr. Victor Bachmaier, of Vienna, treated a case of inoperable uterine carcinoma with pyoktanin injections, 1—300, using twenty-four minims every second day, gradually increasing to forty-eight minims for four months. Pain or febrile symptoms *never* followed the injections, nor did the case in any manner react unfavorably; and, while he expects the disease to become worse again and end in death at some future time, the patient is yet alive and even enjoys life again. Had it not been for this treatment she would have died very soon.

Prof. von Mosetig-Moorhof, in *Wiener Med. Presse*, in a paper on the treatment of inoperable new growths, reports four cases treated by him with pyoktanin. The first was a case of a sarcoma of the inferior maxillary of large size; the second a case of cystic sarcoma of the left sterno-clavicular articulation; the third a papilloma of the bladder; the fourth a large pelvic tumor, which assumed such size as to interfere with the movements of the bowels, finally making colotomy necessary. The tumor had ulcerated above Poupart's ligament, before the pyoktanin treatment

was adopted in this case. In all the results were entirely satisfactory, but in the last named case the result was astonishing, far after fifteen injections the tumor was reduced to one-third its former size and the patient able to be about and attend to his usual vocation.

Dr. Willy Meyer (*Medical Record* April, 1891) treated four cases of cancer, one epithelioma of the scalp, one epithelioma of the face, and two of cancer of the breast, which were beneficially influenced by pyoktanin.

Dr. M. Bellotti (*Rifoma Med.*) also tried the pyoktanin treatment in two cases of malignant disease with the result of improving the local condition.

Prof. M. F. Coomes, of Louisville, Ky., (*Med. Age*) treated two cases of lupus involving the interior and exterior portions of the nose. He says: "I have every hope of curing both cases, and make this report trusting that those who have patients with lupus will give pyoktanin a fair and impartial trial, conducting the work in a way to leave no doubt as to what agent produces the relief. I have been using three parts of pyoktanin to one thousand parts of water."

"Pyoktanin is a failure as an antiseptic," says Dr. Roswell Park in *Annals of Surgery*. "It cannot be relied upon in surgery except in strength that is dangerous." He adds: "Upon granulating surfaces it does not appear to be stimulating and to exert a desirable effect, but no more so than other substances within as easy or easier reach, and its stain is often undesirable. In ophthalmological practice it appears also to have scarcely come up to the requirements of the day. On the whole, then, it has but few qualities by which we are to commend it above numerous other drugs of its general class, while in all that answers to the more scrupulous demands of aseptic surgery it has proved (in my hands, as in those of others who have tested it from the purely clinical standpoint) disappointing."

Prof. H. J. Boldt, of New York (*Merck's Bulletin*, 1892) seems to have a better opinion of pyoktanin, for he says: "If, then, one has found a remedy which seemingly answers far *better* than anything hitherto known to lessen the various discomforts caused by far-advanced uterine cancer, it is his duty, in my estimation to make known his experience, though the number of cases on which

it is tried may be limited. It is for this reason I desire to call attention to the results which I have obtained by the employment of pyoktanin in the treatment of advanced uterine carcinoma." His method of treatment was to thoroughly curette all of the diseased structure within safe reach with the largest curette. A dry iodoform gauze tampon usually sufficed to check the bleeding. After forty-eight hours the gauze is removed and a douche of bichloride of mercury, 1—2000, used. The patient was then placed in Sims's position, the parts being thoroughly dried with aseptic absorbent cotton. He begins making his injections at the fundus uteri. The needle is inserted from one-half inch to the full length of the needle. One syringefull of pyoktanin solution is enough for two or three punctures. Sometimes as many as fifteen punctures are made at one sitting. He uses an aqueous solution of pyoktanin (1—100). After completing the injections pure pyoktanin powder is introduced into the cavity of the uterus, or absorbent cotton saturation, with a 1 to 75 solution, can be used instead of the dry powder.

"Care is taken, by using large tampons, to prevent soiling the patient's clothes. Immediately after the injections the patients usually experience very intense pain; it, however, does not continue longer than twenty or thirty minutes. Febrile reaction, or, in fact, any unpleasant symptoms, have never followed. It will be noticed that, regarding dosage, the treatment here advised is more heroic than that hitherto reported; but I have at no time, so far, noticed any ill-result." He speaks very highly of the analgesic properties of the drug.

Noticing a communication from Dr. Hoge in the *Virginia Medical Monthly* for October, 1891, in which he made a complete failure, he says: "Dr. Hoge's failure to achieve a satisfactory result is not astonishing, since he used the remedy insufficiently."

Also another explanation for unsatisfactory results might sometimes be found in the instability of pyoktanin solutions. It is perhaps not generally known that the solutions of pyoktanin, either alcoholic or aqueous, whether weak or strong, will not keep long; especially when exposed to light, they decompose very rapidly, that is, in the course of a couple of days, without showing their decomposition by a marked change in color. Hence the solutions should be made *fresh* every day.

EUROPHEN

is another new dermic remedy. It appears as a fine yellow powder of an aromatic, saffron-like odor, insoluble in water and glycerine, readily soluble in alcohol, in ether, in benzine and in oil.

Euraphen is permanent in the dry state; but, when heated with water to 158° F., or if left in contact with moisture even at ordinary temperature, it gives off free iodine. Solutions and ointments of europhen should therefore be prepared cold. Its physiological action is similar to that of iodoform, and like iodoform and aristol, is active only when applied to moist surfaces which are able to withdraw from it a certain amount of iodine in a free state.

According to the observations thus far made, europhen appears to have the following advantages over iodoform :

1st. Its smell is less intense and not disagreeable.

2d. It is innocuous ; and

3d. It has a lower specific gravity; and, according to Dr. Eichhoff, it has greater attenuability, owing to its lightness in weight. One part of europhen will cover as great a surface as five parts of iodoform.

Dr. P. J. Eichhoff, of Elberfield, reports thirty-three cases in which he employed europhen. These include ulcers dersum, ulcers molle, condyloma, gonorrhœa, ulcers cruris, lupus, psoriasis, eczema, favus and scrophuloderma. All the venereal cases were favorably influenced save gonorrhœa; the cases of ulcers molle were promptly cured by simply dusting with europhen in substance. Constitutional syphilis in every form was benefited by the external appliation of europhen, in substance, as well as by the subcutaneous injection of europhen in oily solution, ¼ to 1½ grains once daily. Of the non venereal affections all were benefited except eczema parasitarium, favus and psoriasis.

Vulpius states in the *Deutsche Medicinishe Wochenschrift* that the results of his bacteriological experiments agree in essential particulars with those of Siebel and Goldman. It was tested upon axthrax bacilli, staphylococcus pyogenes aureus and the bacillus pyocyamus. Anthrax bacilli attained a slight growth once, but otherwise they seemed always to be rendered inert. Staphylococci were essentially checked in their development, although, perhaps, not so much so as under the influence of iodoform.

Pyocyaneus seemed not to be influenced by europhen. He thinks that europhen is less poisonous than iodoform. He used it locally in the form of a powder-ointment and gauze, and never saw any symptoms of poisoning, nor was eczema produced.

The remedy promoted the healing of wounds, and he thinks his trials warrant him in recommending it when rapid and vigorous granulations are to be excited.

Fernandez, in the *Archives of Ophthalmology*, has been experimenting with this drug, and has confirmed a number of previous reports in regard to it. He has tried it on inflamed conjunctivas and corneas, using a salve of from one-half to one per cent.

The application is less painful than iodol. A salve of five to ten per cent. is too irritating; hence a salve of less than two per cent. is recommended.

Nolda (*Therap. Montsh.*, October, 1891,) relates some observations on europhen. In four out of six cases soft sores healed in from seven to nine days, the remaining ones in twelve to fourteen days respectively. The parts affected were washed with perchloride of mercury (1 to 2000) and the pure powder dusted on.

In one very extensive sore the author says that the half treated with europhen healed two days sooner than the other half treated with iodoform. Europhen is indicated in all cases where iodoform was formerly employed. Its healing qualities excell those of iodoform in cases of spreading ulcers.

Dr. Löwenstein presents a very valuable contribution on asepsis in the nasal cavities in the *Therapeutische Monatchefte.* "He finds the insufflation of powdered europhen of great value after operain the nose, not only because of its antiseptic properties, but as well as a remedy for checking hæmorrhage. In ozena he finds it inferior to aristol, which, when used after removal of the crusts and thorough cleansing of the nasal cavities, has yielded brilliant results. In chronic atrophic rhinitis europhen has relieved the symptoms and improved the appearance of the mucous membranes. He found, however, that a ten per cent. solution in fifteen per cent. of olive oil with eighty-five per cent. of lanolin, was more rapid and beneficial in its action. In three cases of perforating ulcer of the septum he achieved brilliant results."

SUCCESSFUL TRANSFORMATION OF SMALL-POX INTO COW-POX.

By Thomas W. Hime, B.A, M.D., *Brit. Med Jour.*, July 16.

May 16th, 1892, Dr. Hime obtained, through the kindness of the medical officer of Brighouse district, where small-pox had been prevalent for some time, some fresh small pox matter in sterilized capillary tubes. The lymph as it ran into the tubes was perfectly limpid, transparent and translucent.

May 17th, in the presence of the medical officer of health of Bradford, he inoculated a healthy bull calf, about ten weeks old, with this lymph. The calf was placed on the ordinary vaccination table used for these animals. With proper aseptic precautions he made fourteen incisions with great care, just penetrating through the epidermis, about three-quarters of an inch (= 2 cm. long.) Scarcely a trace of blood was drawn from 11 and a mere trace from 3. Where any blood appeared it was carefully wiped off with sterilized blotting paper before the lymph was inserted. On the lower part of the abdomen he made seven similar incisions and inoculations. He also abraded the cuticle from a spot about the size of a shilling, while he inoculated in another spot of the same size which he scratched in various directions. The calf was fastened up with a shorter halter to prevent it licking the inoculated parts. At the end of the first day (May 18th) he thought there were signs that the insertions foreboded success, but the appearances were merely due to local disturbance.

May 21st, calf was not well Its appetite was gone. Temperature had gone up to 103° F. When placed on the table he found four points distinctly visible and tangible, just raised about the surface. They were not larger than about the area of a grain of corn divided transversely.

May 22d, calf still unwell, with temperature 104° F. The line of insertions was still detectable to the touch by a slight roughness, but they were all manifestly aborting, while the papules were growing in size and were slightly pink.

May 25th (= 24x8), the calf was put on the table and from the pock-like appearance of the eruption he drew some lymph in steri-

lized capillary tubes in the presence of one of the public vaccinators.

In the presence of Dr. Denby he inoculated his own left arm by scratching an area as large as a sixpence. He had been many times revaccinated, and, being thus protected, the insertion produced nothing beyond a slight local effect, with a yellowish scab coming off at the eleventh day. He had from this inoculation no more general symptoms than when he was last vaccinated, but the marks left show that the action was more energetic. The application of disinfectants had no effect in checking the action of the virus

On May 28th he vaccinated Dr. W. D. in two places with lymph from calf No. 1. He had been vaccinated in infancy, 32 years ago, and one good cicatrix has remained. He had never been revaccinated, but this resulted in symptoms of primary vaccination, local irritation, extending to the glands of the axilla, some malaise, and the appearance of two pocks at the place of insertion.

On 28th May calf was vaccinated with fresh fourth-day calf vaccine, which failed.

Calf No. 2 was vaccinated from calf No. 1 (on the eleventh day of calf No. 1, May 26th), and on the fourth day (24x4) the pocks were beautiful, plump, elevated, with a yellowish scab, a broad, pearly margin, and a delicate marginal blush.

Calf No. 3 was vaccinated from calf No. 2 with perfect success.

A child was vaccinated May 28th from calf No. 2, with clear lymph in two places, which developed in the ordinary course into beautiful typical vaccinal Jennerian pocks.

A test vaccination was made by a public vaccinator with ordinary vaccine lymph in two places on June 28th, but both insertions completely aborted.

He sent some virus to Sanatätsrath Fischer, of Carlsruhe; from calf No. 2 he vaccinated a cow four weeks old.

On June 18 he telegraphed that the results were superb. From this calf he vaccinated six children, and he describes the result in a letter written to the author, Dr. Hime: "Everyone of the insertions was successful, and showed the most lovely vaccinal pustules which could be seen without any undue local reaction. There was a rose-red areola and typical umbilication with true Jennerian vesicles.

The illustrations add nothing to the descriptions made by Dr.

Hime, and we trust that he will reprint his article and give us the clear illustrations which are so necessary to help one to make up their minds upon this important subject.

Dr. Hime's article, as it stands, is clearer and more convincing than those by Badcock, Ceely, Chauveau or Voight, and those who are interested in this important subject will be anxious to learn whether or not any cases inoculated with this new variolo-vaccine have imparted the disease to others by contagion.

TETANUS BACILLUS IN COBWEBS.—Two Italian professors, in sweeping out the dark corners in search of bacilli, have found the bacilli of tetanus in cobwebs. What a pity we did not know this during the siege of Richmond, when our revered Prof. Wellford was recommending it as one of the substitutes for quinine in those times of scarcity. The science of botany is adding largely to its knowledge of species through the ambitious researches of these young adepts with the microscope, but we think pathology will not get much of it.

THE IDEAL FAMILY PHYSICIAN.—The Hon. Thomas F. Bayard recently addressed the class at one of the medical colleges in Baltimore, having for his theme "The Lawyer and the Doctor." It has been his fortune, he says, to be thrown in contact with not a few medical men who have been "as the salt of the earth" in their respective communities. A man who is already eminent by reason of his natural endowments may be said to double his talent by becoming a physician. "It has been my personal fortune," says Mr. Bayard, "to know such a man." It has been my privilege and delight to accompany him in visits where his only medicines were the personal presence and conversation of the man himself. He had shared and had lessened their anxieties; counseled the wayward; cheered the weak-hearted; had rejoiced with them that rejoiced and wept with the weeping. And I have seen such a man so surrounded by an atmosphere of love and tsust, holding, as it were, the heart strings of a family in his hands, their guide, philosopher and friend; and then I realized what a moral force in society the profession, properly comprehended and properly followed, was capable of exerting, and how relatively small a part of its usefulness was the administration of medicine."—*N. Y. Med. Jour.*

EDITORIAL.

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SOME CHAT ABOUT MEDICAL DICTIONARIES.

In no department of medical literature has there been more effort than in that of lexicography in the last few years. America, after having monopolized the field with the work of Dunglison, again took up the work, which resulted in Thomas', Gould's, Billings', Foster's and Keating's, besides one or two small dictionaries. Immense labor has been bestowed on these volumes, and many of the best scholars in the country have been employed to aid authors in researches. With what results? Thomas was the first to break the silence; he was followed by Gould and Billings, and then by the first volume of Foster. Keatings has not been long

enough out of the press to be thoroughly understood, but its plan is not different from the others as far as we can discern. Between the time of the death of Dunglison and the appearance of Thomas' Dictionary medicine had made strides that could not be compared with any past period. Numerous words had come in largely through the activity of the Germans, which made Cutler's "German Terms Used in Medicine" all but indispensable to one who did not have some knowledge of German and its technicalities. Thomas' Dictionary was found deficient in many of the new words, excelling, though, as most American dictionaries do, in botanical words. Chemistry, the growing science which, by its new immense territory and complicated terminology had outrun the best practical students of medicine, making a dictionary indispensable that could treat with these terms, but in all these dictionaries chemical words were deficient. Nowhere could be found an explanation of the diazo-compounds, and several practical terms known to chemical students, and occurring in the journals, had to be passed by on the part of the doctor who had studied medicine thirty years ago.

There seems to be room for two kinds of dictionaries, the encyclopediac, such as Foster is bringing out with so much ability, and the other, the convenient one after the fashion of Gould's somewhat, but more in shape and typography and cheapness like Nuttall's Dictionary. Something like one-third of the words in every medical dictionary are botanical words which are obsolete as to their therapeutical use, and are of no service except to a botanist who wants to make a momentary reference, but even for the botanist there is not enough to satisfy his research. The medical men of to-day care nothing about botany or chemistry; they may like to know the spelling of a word new to them, and they may be compelled to find a chemical term in order to get the meaning of a sentence.

Just what botanical or chemical terms may be left out by the lexicographers, would require a wise head to determine. Yet it could be done, and so reduce the size of volumes very greatly and leave room for living words.

The encyclopediac dictionary may, and probably will, take a complete stand at once, and our belief is that it will prevent a rival coming into the field for a time longer than did Dunglison's work.

The smaller dictionary, the one for the beginner, the one for the busy doctor (always too busy to read anything but "the Brief"), the

one that a proof-reader will like to have constantly under his thumb, the one divested of obsolete learning, the "Webster's Abridged" of medicine, the one to cost about $1.00, is not yet made. It is going to come, for the big dictionaries are doing the work now for just such a handy little volume. The wise editor of this coming work is going to drop the herbs which have been handed down to us since Turner's day (1532), except "ticke seede" or Palma Christi and a few others, and retain a list only a little longer than that which now burdens the Ph. U.S.

One of our learned professors teaches us that acetanilid causes general euphory; you have just taken your wrapper off your newest dictionary and find it not there; so go searching. Driven to the wall, we light on Quincy's Dictionary (acknowledge it, reader of the fifties, that you have never heard of such a book!) and find it there.

But then the word was obsolete, as shown by its appearance in Quincy, and why should as dignified a volume as Pepper's System put new life into an old word and send it on its journey? So the dictionary-makers have their troubles, but may not wish to take the cogitations of State or country medical editors as worthy of serious study. The editors, on their part, promise that they are not going to write a dictionary even upon the superior plan they have a right to claim as book critics; but from "Motherby" to "Keating," with all the side-lights of "The Century," "International Webster," and the ponderous and scholarly "Murray," are going to select the best they find, and leave the fruitless straw to be thrashed over again and again by those who have absolute confidence in dictionaries.

"APPOTHYCARYES" IN NORTH CAROLINA IN 1585.—In a letter from Ralph Lane from Roanoke Island to Sir Francis Walsingham, dated August 12, 1585, he says: "Our arrival here, thoughe late in the yeare, hathe, nevertheless dyscouverdde unto us soe many, soe rare and soe singulere commodytyes, by the unyversalle opynyon bothe of our appothycaryes and our merchanntes here, of this his majestyes newe kingdome of Virginia," etc.—*Am Antiq. Soc. Trans. Vol. iv, p.* 9.

REVIEWS AND BOOK NOTICES.

A System of Practical Therapeutics. Edited by Hobart Amory Hare, M.D., Assisted by Walter L. Chrystie, M.D.

The third and last volume treats of the Therapeutics of the Diseases of the Skin, of Diseases of the Nervous System, Diseases of the Genito-Urinary Apparatus, Diseases of the Eye and of the Ear. The volume is a ponderous one, containing 1,392 pages 9½x6 inches. The section of diseases of the skin is by H. Radcliffe Crocker, M.D., who treats of Disorders of Secretion and New Growths, and Hypertrophies and Atrophies of the Skin by Dr. Jas. Nevin Hyde, M.D., and Neuroses and Parasites of the Skin, by Milton B. Hartzell, M.D. That it is as rich in prescriptions and specific directions will enhance its value, and this is the place to remark that the specialists in dermatology take more privileges than most specialists in using trade-mark prescriptions. General practitioners take them all in, and no place in the volume will be more thoroughly thumbed than the very first section of the volume.

The Diseases of the Nervous System opens with Hospital Treatment of Insanity and the Medical Treatment of Insanity, and covers 365 pages, including 38 pages devoted to drug addiction. These latter sections are devoid of the usual intemperate and eccentric statements which are so common among the writers upon these subjects.

The statement that there were many cases of coffee delirium from the scarcity of food and abundance of coffee, applies only to one side, as some ex-Confederates know. Delirium from coffee or from whiskey the writer never saw during his service of nearly four years in the P. A. C. S.

The diseases of the male and female urinary and generative organs are treated very fully. We are pleased to see that the diseases of pregnancy, that part appertaining to vomiting, is considered in due proportion of its importance. More women are lost from the malignant form of this vomiting than most of us are aware of. "The mortality in pernicious vomiting is high." Says the contributor, Dr. B. C. Hirst: "The disease is dangerous. Of 239 cases, 95 died; of 57 cases treated by the ordinary methods, 28 died; of 36 cases treated by the induction of abortion, 9 died."

Never before has a work of this sort given so much attention to the treatment of diseases of the eye and ear. The American profession need no longer cast aside the treatment of diseases of the eye as forbidden territory. Timidity and lack of fresh knowledge, and ignorance of the dangers of delay in doing the right thing for an organ as easily and irreparably damaged as the eye ought not to be pleaded when they fail to do their duty. They are no longer exculpable by saying they are not specialists. With such plain statements of diagnosis and treatment as given by Dr. De Schweinitz they can do valuable service until the specialist can be reached.

We would be glad to see these volumes in every library. They are large and somewhat unwieldy, but the matter contained in them is in great part from a fresh lot of authors, who have brought vigor to their work. They have added to the reputation of American therapeutics, and we congratulate the editor that he has succeeded in placing these three large volumes in our hands, before the therapeutics got stale.

THE SCIENCE AND ART OF MIDWIFERY. By WILLIAM THOMPSON LUSK, A.M., M.D. New Edition. New York: D. Appleton & Co., 1892.

This is a thorough revision of a work which from the beginning met with a high degree of appreciation from the profession in this country and abroad. In the interval since the last edition (in 1885) was issued, the author has found it necessary "to present to the profession an entirely new book." One would think that the science and art of obstetrics would be the least likely field for great advance in pathology and treatment, but still we find how great have been the changes by comparing some items and dates in this volume with what we see in daily practice. True, in a few years we have seen the pendulum swing from one side to the other upon several important questions, but finally reach a conservative level that needed no pedantic explanation to impress the practical obstetrician with their value.

We think the author, as regards the employment of veratrum viride in eclampsia and puerperal fever, has abundant warrant in giving to that drug a higher position as a medicinal agent. Country practitioners, who get into many and tough encounters in the back-

woods with eclampsia, with no brother physician to consult with, have found how great a boon veratrum by the mouth, and subcutaneously, has been in their dire distress with eclampsia, raising them from despair to victory, battling with this fearful foe.

This ought to be the leading book in obstetrics for medical students in America, especially in this last edition, and without knowing the secrets as to its sales, we seldom see a collection worthy to be called a library that does not include it.

EXPERIMENTAL RESEARCHES ON THE TRANSMISSION OF CANCER. —After a series of experiments on various animals, Duplay (*Gaz. des Hopitaux*, No. 23) draws the following conclusions: (1) Cancerous neoplasms are not transmissible from man to animals; (2) contrary to what was expected from the results of other experimenters, only negative results were obtained as to the transmission of cancer from one animal to another of the same species, after a lapse of time varying from three to eight months; still, until more experiments have been made, and under more favorable conditions, no definite conclusion is arrived at; (3) cancer is not transmissible from one animal to another of a different species; (4) the results do not permit the denial of its parasitic nature, whilst at the same time they do not enable the author to affirm it. This question remains, then, undecided —*Med. and Surg. Reporter.*

DR. GEORGE M. GOULD, editor of the *Medical News*, requests us to call attention to his offer of a prize of $100 for the best essay sent him "setting forth historically and actually the ridiculous pretensions of modern homœopathic practice." This essay, containing not over 15,000 words, and type-written, must be sent to him on or before January 1, 1893. It must not contain the author's name, but must be accompanied by a sealed letter containing the author's name with a motto or *nom de plume* (corresponding to the *nom de plume* on the type-written essay?). When the prize has been awarded the essay will be cheaply but well printed in large quantities, and supplied to physicians at the cost of printing. We have no faith in true homœopathy, and no sympathy with that which falsely displays its banner; yet we hope that the essayists will write modestly, as there are individual "glass houses" on both sides of the fence.—*Med. News and Notes.*

CORRESPONDENCE.

A PASTE OF PAPOID AND SODA FOR THE SOLUTION OF MEAT AND GRISTLE FOUND OBSTRUCTING THE ŒSOPHAGUS.

Messrs. Editors North Carolina Medical Journal:

Recalling the interesting case reported by Dr. R. H. Whitehead, of Chapel Hill, in the NORTH CAROLINA MEDICAL JOURNAL of February, 1892, of a child with obstruction of the œsophagus with a piece of meat, relieved by the digestive action of pepsin and hydrochloric acid, I wish to call attention to a suggestion made by Dr. Frank Woodbury, of Philadelphia, in an article on Papoid in the *New York Medical Journal* of July 30 last. In this interesting paper he gives a short account of the history, preparation, physiological action and clinical uses of this wonderful digestive ferment of Carica Papaya, and concludes as follows: "In case of obstruction of the œsophagus by an impacted piece of meat and gristle—such as has been recently reported—a paste of papoid and water with some soda would produce softening in a very few minutes."

Occlusion by a digested substance is rare when the œsophagus is normal, but not so in cases of old strictures, and an easy and rapid method of overcoming it is valuable.

Dr. Whitehead's idea of using a digestive ferment was independently conceived, but other cases have been reported. Mackenzie (Diseases of the Throat and Nose, Vol. II, page 195) refers to a German case published in 1861. In this JOURNAL for October, 1887, I reported a case in conjunction with Dr. W. H. Bobbitt, of Raleigh, which was similar to Dr. Whitehead's, except that there was a previous stricture and that we used trypsin and soda instead of pepsin. I have used the method with apparent success since, but have not had an opportunity to try papoid.

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PILOCARPINE HYDROCHLORATE, hypodermically, conjoined with the internal use of camphor, is reported to have excellent results in *status epilepticus.—Med. Record.—Maryland Med. Jour.*

CURRENT LITERATURE.

ACTION OF ANTIMONY IN DISEASES OF THE SKIN.

Dr. W. A. Jamieson (*Edinburgh Medical Journal*) says:

Antimony lowers temperature in some conditions of the skin associated with hyperæmia and dryness of the surface, to a well-marked extent.

So far as our observations go, its influence on tissue waste as estimated from the amount of urea excreted, or on fluid loss by the kidneys, is not, under the circumstances detailed, a noticeable one.

It softens the skin, imparting increased succulence to its cells, augments insensible perspiration, improves the nutrition of the integument, diminishes hyperæmia, and lessens the tendency to premature and excessive epidermic exfoliation.

While advantageous in the early congestive stage of acute eczema, it is contra-indicated during the period characterized by oozing—the second stage of Brocq, that of rupture of vesicles—though it may again prove serviceable at a later era—the fourth stage of Brocq, that of successive desquamations. We have found this borne out by our experience of a case of eczema treated with antimony, at present in the ward.

If Mr. Morris is right, as he probably is, that it is likely to be of special use in cases where there is a functional nervous cause, it may prove of value in diffuse scleroderma, and possibly in myxœdema.

As compared with arsenic, authors are pretty generally agreed that the latter is valueless in conditions of the pityriasis rubra type—whether by this exfoliative dermatitis in its dry forms alone is meant, or if pityriasis rubra pilaris is included.

Arsenic restrains the tendency to form bullæ in dermatitis herpetiformis and pemphigus, and sometimes cures psoriasis if stationary or a first attack; but, on the other hand, it may apparently sometimes convert a psoriasis into a pityriasis rubra.

Arsenic in some cases renders the skin muddy, dull and earthy, or deeply pigmented; it may induce the formation of horny warts on the fingers, or thicken the epidermis of the palms, giving rise to a keratosis, which again may pass on to epithelioma. Such re

have not, so far, been found to follow the administration of antimony, nor are such likely to accrue.

The action of antimony may be contrasted with that of pilocarpine Pilocarpine produces a copious perspiration for a brief portion of the twenty-four hours; antimony bathes the epidermic cells continuously in a gentle moisture. Pilocarpine lessens or cures a pruritis in a dry, atrophic, anæmic, senile skin, by flushing the emunctories, but its rapid stimulant effect is not suited for cases of active hyperæmia, which, as has been seen, are more amenable to the influence of antimony. Both, however, improve nutrition and aid in the deposition or restoration of diminished subcutaneous adipose tissue—*Am. Lancet.*

THE OPERATIVE TREATMENT OF THE ENLARGED PROSTATE.

Keyes *Medical Record*, Vol. XL, No. 18) arrives at the following conclusions in regard to the treatment by operation of prostatic hypertrophy :

1. Prostatectomy is justifiable, and does what nothing else can.

2. The perineal operation is somewhat less severe, but decidedly less reliable than the supra-pubic; it should rarely be preferred, unless there be urethral complications. In very feeble men it may still be elected.

3. The operation is not justifiable, with present statistics, if the patient can be comfortable in catheter life.

4. No physical conditions of the parts or of the patient short of a practically moribund state contra-indicates operation. By it in desperate cases life is often actually saved, although the operation is a grave one and its mortality high.

5. With the rongeur—better than any instrument—the bladder outlet cannot be lowered, and polypoid or interstitial growths jutting into the prostatic sinus can be removed, and these points are more essential to a more successful operation than in the taking away of a large portion of the prostatic bulk. The instrument next in value is the curved scissors, but the skilled finger is most important of all. Most of the work has to be done by the aid of

touch, as the bleeding soon becomes free and renders visual inspection impossible.

6. Diuretin, perhaps, is of value when the kidneys are damaged. It certainly does no harm.

7. Chloroform alone should be used as an anæsthetic, for the sake of the kidneys.—*Am. Jour. Med. Sciences.*

GOLD CURE SPECIFIC.

The notoriety of this empiricism is rather a sad reflection on the general intelligence of the public, and also of many so-called physicians.

Charlatanism managed with psychological skill, assuming some discovery in science, that is a rational possibility, and covering up the real motives, is always attractive to the credulous and non-experts. But when it boldly proclaims theories outside the range of science and common sense, to be accepted entirely on faith, and the whole accepted on a great pecuniary scheme to enrich the authors, it is difficult to understand how it should receive any serious attention. Compared with other empiric schemes, the bichloride of gold is very inferior in methods of management and assumed reality. It is the same old quackery, bold, ignorant and dogmatic, without a single original feature. The wild hysterical claims of cure by those who have used the secret remedy, is the same old story that is heard after every church and temperance revival. This posing as cured men by this or that means, with certificates from clergymen and others is common history in every community. It is a curious fact that mystery and concealment should add to its popularity, and still more unexplainable that both pulpit and press should be caught by such means. It is not strange that inebriates who have received benefit from the treatment should become enthusiastic as defenders of its merits, particularly when it is a pecuniary object to do so. The rapid growth of branch institutes for the treatment is purely commercial, and are managed in nearly all cases by so-called cured men. Precisely what the secret remedy is used under the skin, and other means, are of no interest except psychologically, and as phases of the evolution of the drink evil.

The success of the author financially in this country has developed the same boldness to conquer "other worlds." But, unfortunately, he assumed that entrance into societies and scientific support was a merchantable thing, to be bought. Also that the medical, as well as the secular press, was governed by public opinion, and ready to sell out when the price was offered. This was the "Waterloo for Keeleyism" abroad. The *British Medical Journal*, the *London Lancet*, the *Medical Press*, and several of our large dailies have denounced the whole scheme as the boldest quackery that has appeared for a long time. In the meantime, a house has been opened in London for the cure of inebriates, and the secret remedy offered for sale. An analysis of the remedy has been made and found to contain no gold, but 27½ per cent. of absolute alcohol; and this statement is not denied by the managers of the cure. The Berlin authorities refused to permit a branch institute to be opened in Prussia, unless the remedy was first submitted to the public chemist for analysis. In all this the gold cure managers have displayed stupidity rarely seen among the common quacks. No attempts have been made to cover up the real pecuniary objects of enlisting capital and organizing companies for the sale of rights and remedies, as a matter of great profit. This combination of charity, business and science is new to our English relatives, and of course rejected. There is one feature of this gold cure specific worthy of study—that is the hurry and dash of the movement. Doing its work in three or four weeks, sending out the patient inflated with an idea of permanent cure, filled with extravagant expectancies and hope, and receiving full pay for this operation. This shows rare skill and full recognition of the brevity of this movement. The bichloride of gold will soon be among the things of the past; and also be a source of wonderment how it could grow and attract attention in this materialistic age.—*Journal American Medical Association.*

PROLAPSE OF THE EXTREMITIES IN HEAD PRESENTATIONS.

J. Kaeser (*Centralbl. f. Gynäk.*, No. 2, 1892), from a study of recorded cases, finds that prolapse of the extremities is far com-

moner in multiparæ. The complication is favored by hydramnion, contracted pelvis with previous heavy labors and twin gestation, since in these conditions the inferior uterine sagment does not press on the head with firmness sufficient to prevent prolapse of the extremities. Prolapse of the arms is less serious than prolapse of the legs, but the cord often comes down as well in these cases, and that condition is very grave for the child. When the membranes are yet entire the obstetrician must wait till the os is completely dilated. Then the protruding extremity must be pushed up and the head brought well down by external pressure. After rupture of the membranes manual reposition of the prolapsed member must be effected; if this proves unavailing and the head is movable, it will in many cases be advisable to turn. When the head is firm, reduction of the extremity should be cautiously attempted in the intervals between the pains. If this should fail, then, according to the nature of the case in other respects, natural evolution may be awaited, or the forceps or perforator may be required.—*Brit. Med. Journal.*

DR. BROADBENT ON TOXICITY OF EXALGINE.

A patient (male) aged 26 years suffered from neuralgia over the left temporal region for a week. He was inclined to be anæmic. He was ordered a dose containing four grains of exalgine, to be repeated in two hours if unrelieved; and if neither dose gave ease, he was directed to take two doses (containing eight grains in all) the following morning after breakfast. The same evening the patient took one dose and obtained relief from the pain, but at the same time complained to his wife of feeling giddy, as if drunk. Next morning at 4.30, feeling a slight return of the pain, he took the rest of the medicine, which contained twelve grains of exalgine. He immediately became dazed, clutched at the bedstead, but fell prostrate on the floor, where he remained quite unconscious for half an hour, and during this time frothed at the mouth. On my arrival at this juncture, I found him on the floor making a feeble effort to vomit. The pulse was feeble and slow; eyes closed; pupils natural. He was with difficulty got to answer questions, when he complained of pain in the region of the stomach and noises in the head. One-

tenth of a grain of apomorphia given hypodermically caused him to evacuate the stomach. Subsequently one-five-hundredth of a grain of strophanthin with ten minims of ether were administered in the same way, and the man slowly rallied. The pain in the stomach disappeared first, but the noises in the head remained for some time. Later the patient could not remember events which occurred half-an-hour subsequently to his regaining apparent consciousness, and during this time he was constantly yawning. He had never had a fit in his life.

Twelve grains of exalgine must be regarded as an excessive dose, but if the toxic dose is three grains for every two pounds of body weight, as stated by some writers, these alarming symptoms not to have occurred.—*London Lancet.*

How Much Exact Science for a Doctor.—* * * But as each science is heaping up higher and more huge pyramids of facts, so it is impossible for men aiming at general knowledge to master the facts of the so-called exact sciences. Medical men must aim at as much literary culture as they can get, and must be rather fed on the principles of science than gorged with indigestible facts. We fear the chemist will cry out against the intensely practical view of his science which Dr. Cuming takes, but we are inclined to think that the chemist will in time be inclined to think it true of his science what J. J. Rousseau said of botany—that it was a misfortune for botany when it fell into the hands of the doctors, for they only sought simples for cures, and did not really study botany as a science.—*Editorial in Brit. Med. Jour.*

Dr. Hunter McGuire, of Richmond, Va., was elected President of the American Medical Association, at Detroit, to serve for the ensuing year. This honor could not easily have fallen upon more competent shoulders or to the hands of a more popular man. Dr. McGuire has a strong following of friends throughout the South and Southwest that are only warmer in their admiration than those of the North and Northeast, because they are nearer to him geographically. The hearts of all, whether residing North, South, East or West, are equally warm in their manifestations of approval of Dr. McGuire's election.—*Buffalo Med. Jour.*

CURRENT NOTES.

DR. JANEWAY has resigned his position as professor of practice medicine in the Bellevue Hospital Medical College, and also those of attending physician to Bellevue Hospital and consulting physician to the board of health.—*N. Y. Med. Times.* [Dr. Janeway says his reasons for resigning is that these institutions are managed by politicians for political purposes.]—*St. Louis Med. Mirror.*

A STATUE TO JENNER.—It is a significant fact that while an attempt is being made in England to decry the benefits conferred on humanity by Jenner's discovery, the medical profession in Japan, impressed with the enormous benefits which vaccination has conferred on their countrymen, are taking steps to erect a statue to "that medical benefactor of mankind."—*Bost. Med. and Surg. Jour.*

THE KEELEY CURE IN ENGLAND.—The Church of England Temperance Society came very near endorsing this notorious proprietary cure for inebriety. A large meeting was to be held under the auspices of the Society, with a presiding Lord Bishop, in order to set forth the virtues of this method of treatment, but at the last moment, by the influence of some public-spirited physicians the meeting was postponed *sine die.—Boston Medical and Surgical Journal.*

AUGAGNEUR (*Nouvelles Archives d' Obstetrics et de Gynecologie*, May, 1892) believes that the local treatment of syphilis in pregnancy is of the greatest importance. Free antiseptic disinfection with sublimate, boric acid, etc., should be used at first; but these solutions should not be applied too freely or too long. The humidity of the parts in pregnancy may cause accidents. Hypertrophic lesions of the vulva must be carefully treated. Thus condylomata should be freely and frequently dusted with powdered boric acid, filling up all fissures and folds with the powder. The best powder, to keep the growths thoroughly dry, and thus to cause their atrophy, is made of ten parts of boracic acid to twenty parts of powdered talc. This compound is almost impalpable, non irritant antiseptic and very adherent. Without careful treatment condylomata grow quickly in pregnancy and may cause grave complications. – *University Medical Magazine.*

The prevention of typhoid still remains the greatest problem to be solved; and since the principles are so well founded more than half of them are allowed by negligence.

United States Census.—According to recent returns from the last census there were, in the United States, 62,622,650 inhabitants, of whom 53,372,703 were born in the United States. The colored population, including Chinese, Japanese and civilized Indians, was 7,638,360. There were 32,067,880 males and 30,554,370 females. During the last decade the increase of males was 25.66 per cent, while that of females was 24.02 per cent.—*Boston Medical and Surgical Journal.*

How to Use Peroxide of Hydrogen.—In a recent number of the *American Journal of Dental Science* Dr. Brophy says:

"I saw a case, a day or two ago, where peroxide of hydrogen was injected in such a cavity as we are speaking about. The patient called on one of our practitioners, and he found what he supposed was a chronic abscess where a tooth had been extracted. He filled a rubber syringe with peroxide of hydrogen and carried it up into the socket of a bicuspid tooth, and let the fluid go. The patient told me that he thought he was going to lose his head. I said: "What do you mean?" "I really thought my head would burst." The peroxide of hydrogen entered the antral cavity, which was half filled with pus, and you know what the result would be in such a case. The dentist did not observe the precaution of thoroughly irrigating the cavity with carbolized water, or even warm water. He should have cleaned out the greater quantity of the pus, and then he could have made use of the peroxide of hydrogen and removed the little remnants on the mucous wall which the carbolized water would not remove. He would then have the cavity in shape to use boracic acid or whatever he wished. I would put boracic acid crystals in there and let them lie so as to get the prolonged action of the antiseptic. The crystals would dissolve slowly and would serve our purposes better than any fluid."—*Maryland Med. Journal.*

A New Method of Introducing the Eustachian Catheter.—Dr. J. M. Ball, of Keokuk, Iowa, describes his method of introducing the Eustachian catheter. After cleansing and cocainizing the nasal mucous membrane, he retracts the soft palate with

White's retractor, has the patient hold down his tongue with a tongue depressor while he passes the catheter through the nose; then, by introducing a mirror into the pharynx, he is able to see that the catheter enters the orifice of the Eustachian tube. After the introduction of the catheter the mirror is withdrawn and the inflation is completed in the usual way,—*Journal of the American Medical Association.*

THE CHOLERA is now declared epidemic in Baku, on the Caspian Sea, and the inhabitants are fleeing from the city, even the government officials and city authorities having deserted their posts. The condition of the sick and of the few who remain to care for them, is said to be deplorable in the extreme. It is rumored that the disease exists in Kertch and other Crimean ports, and Akka, or Acre, on the Mediterranean shore of Asia Minor, is also infected. In Paris, the disease called by the authorities "Cholerine," continues to spread, though in a mild form.—*Medical Record.*

AN ANCIENT EPIGRAM AND A MODERN INSTANCE.—The *Brit. Medical Journal* states that one of the physicians of the Glasgow Western Infirmary objects to his patients being handled on cold mornings by students having cold hands. In order to call attention to this evil, complained of anciently by Martial, in his epigram to Symmachus, his physician, the Glasgow professor offered a small prize for the best translation of Martial's epigram :

Smart cam' ye, sir, to me na weel,
A hundert students at your heel ;
A hundert hauns did ower me feel
Wi' Boreas blue.
I had nae fever then, but, deil,
I have it noo.

The other rendering, by Mr J. F. Gemmill, reads :

I lay in number twenty-one, a case for rest and tonics,
And good old G——— came round to me with all his train of chronics ;
A hundred meds, with fingers blue, palpated me like Lister,
And now, no longer weak and cold, I'm frizzling like a blister.

Pretty poor translations both.—*Med. Record.*

THE Court of Appeals of Kentucky has recently decided that syphilis, pleaded in answer to an action to recover damages for breach of promise of marriage, is a complete defence, following the decision of the Supreme Court of the State of North Carolina, in which the same defence was interposed and sustained in a similar action.— *Weekly Medical Review.*

TREATMENT OF CONVULSIONS.—Dr. Blacklock (*London Lancet*) describes his treatment of convulsions in children as follows: "When summoned to one of these cases I took with me a one and one-half ounce bottle containing sixty grains of chloral hydrate dissolved in water, and a small glass male syringe, which holds two drachms; I prefer that the nozzle of this shall have been shortened and rounded by heating in the gas or spirit lamp. As the child lies on the nurse's lap it is turned on one side, the syringe introduced into the rectum, and one, two or three drachms of solution injected, according to age. A child between one and two years old will take one drachm, one three or four years old will take two drachms. When withdrawing the syringe press the buttocks firmly together to prevent the solution escaping, and keep up this pressure for about five or seven minutes, by which time the convulsions will have greatly moderated—they generally cease altogether within ten minutes. I find that a solution of this strength causes no irritation. I have tried the same hypodermically, but with less success, and parents object to the repeated punctures which are necessary for injecting the required quantity. In no case has any evil result happened in my experience.— *Western Medical Reporter.*

THE PROGRESS OF CHOLERA.—From the reports published in European journals it would appear that cholera has been very prevalent in India, and its further development in Europe is feared. Cholera this year has followed the northernmost of the three routes from India, the route which it followed in 1829 and in 1843–'44. The movements of trade in Central Asia have been profoundly modified by the building of the Transcaspian Railway, which runs from Samarcand, touches the Persian frontier at Askabad, and strikes westward to the eastern shore of the Caspian. The trading route crosses the Caspian to Baku, which is the terminus of the Transcaucasian Railway, which runs by way of Tiflis into Southern

Russia. There is also a large coasting trade from Baku northward to Astrakhan at the mouth of the Volga. Cholera has followed this route from Askabad, on the Persian frontier, to Saratov, which is 500 versts above the mouth of the Volga.

It reached Persia from Afghanistan, and penetrated the Russian frontier about the end of May or the beginning of April. The first Russian town attacked was Askabad, which is a station on the Transcaspian Railway, and spread along the railway, both eastwards and westwards, with a rapidity which may fairly be called alarming, and is certainly unprecedented. It reached the eastern shore of the Caspian Sea in a few days, and was not arrested by this natural boundary. Following the ordinary course of trade, it soon made its appearance on the western shore of this great inland lake; Baku, the petroleum port, was the first place infected, and a large number of deaths have occurred there. Extraordinary efforts were made by the Russian officials, by quarantine regulations of a very strict kind, which involved the complete arrest of all trade, to keep the epidemic limited to Baku and its immediate neighborhood. When we wrote last week it was hoped that this had been accomplished, but the official news of this week shows that this hope has been disappointed, and that quarantine has once more shown itself to be merely "an elaborate example of leakiness."

From Baku the epidemic has spread in three directions—south to Shusha, near the Turkish frontier; north along the line of coasting traffic to the mouth of the Volga, and westward to Tiflis, which is on the Transcaspian Railway. It has been keenly apprehended that if the epidemic once became established at Astrakhan, at the mouth of the Volga, it would quickly gain a foothold in some of the provinces which have suffered most from the famine. This apprehension has, it is to be feared, been realized, for it is now admitted officially that cholera has appeared in Saratov, the capital of the province of that name. Twenty-nine deaths occurred in the first four days of this month, and it is impossible not to feel that the presence of the epidemic among a population already decimated by famine and disease constitutes a very serious menace to Europe. It was reported on July 6th from St. Petersburg that cholera had appeared in the province of Kostroma, some 700 miles further up the Volga, and in the very centre of Russia in Europe.

Very optimistic opinions have been telegraphed from Vienna,

but, while sympathizing with the motive of such utterances, we are not altogether prepared to endorse them. The progress of sanitation in this and other countries of Western Europe has come very much to remove the faulty social conditions under which cholera is known to flourish; but our immunity is only to be secured at the price of constant vigilance. Dr. Proust has truly observed, in a recent report to the Comité Consultatif d'Hygiene de France, that if the infection spreads to the Black Sea there is every prospect of the epidemic following the lines of the visitations of 1831 and 1847—that is to say, either northward, through Austria and Germany, or directly eastward, through Northern Turkey and the Danubian principalities.

There is no doubt that there has been a considerable prevalence of cholera in India this year, and that it has in fact become distinctly epidemic there. A correspondent, writing from Srinagar under date June 11th, states that the epidemic there began May 9th, and that there had been over 8,000 cases and 5,000 deaths in Srinagar alone out of a population of 124,000, and at least 1,500 deaths in the district. It is hoped that the worst is now over.—*Med. Age.*

Camphoid, a New Collodion.—The *American Druggist* refers to the above named substance as a possible substitute for collodion. It is a property of iodoform that it is soluble, one part in ten, in Rubini's solution of camphor—that is, equal parts by weight of camphor and absolute alcohol—and may be thus used as a topical application. This requires fixing on the part, to get the best results; this object is attained by the addition of pyroxylin, one part in forty of the iodoform and camphor solution. A complete solution can be made in these proportions. When applied to the skin with a brush, the fluid does not spread, but dries up in a few minutes and leaves an elastic opaque film that will not readily wash off. The excess of camphor volatilizes and masks the odor of the iodoform. The gun-cotton may be used with the simple camphor solution, in the strength above mentioned, and be made to serve as an eligible base for dermatic medicaments, such as resorcin, chrysarobin, ichthyol, iodine, carbolic acid or salicylic acid. Martindale, in the *Pharmaceutical Journal* for April 9, suggests that, if the camphor and pyroxylin solution shall prove acceptable to the profession, it may be named "camphoid" In that event, the formula would

read as follows: Camphor, 20 parts; absolute alcohol, 20 parts; pyroxylin, 1 part.—*Jour. Am. Med. Assoc'n.*

MEDICAL HEROISM.—Three men were recently rendered unconscious by fumes while clearing out a blast furnace at Sunderland, England. Dr. Glen ascended to where the men were working on the top of the stone, lashed himself to a rope to prevent his falling, and for fully an hour applied artificial respiration, his efforts being finally crowned with success.—*Medical Record.*

TREATMENT OF APPENDICITIS.—Dr. Senn's conclusions are these: 1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized. 2. Excision of the appendix in cases of simple, uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operations. 3. Excisions of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure. 4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix. 5. All operations should be done through a straight incision, parallel to, and directly over, the cæcum. 6. The stump after excision of the appendix should be carefully disinfected, iodoformized, and covered with peritoneum by suturing the serous surface of the cæcum on each side over it with a number of Lembert stitches. 7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound. 8. Drainage in such cases is unnecessary, and should be dispensed with.—*Medical Progress.*

READING NOTICES.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning.
For catalogue, write Rochester Lamp Co. New York.

WE beg to call the attention of the Medical Profession to Bœhringer's Muriate of Cocaine, which is the handsomest and purest preparation ever put on the market. Every conscientious physician should use it, as it has proven to give the best and quickest result.

NORTH CAROLINA

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ORIGINAL COMMUNICATIONS.

SOME REMARKS RELATIVE TO THE STATE BOARD OF PUBLIC CHARITIES AND COUNTY CHARITABLE AND PENAL INSTITUTIONS.

By William H. Cobb, Jr., M.D., Chairman of Section of State Medicine and Medical Jurisprudence.

(Read before the Medical Society of North Carolina, at Wilmington, May 18th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

Great and growing have been the demands requiring the permanent establishment and maintenance of a State Board of Public Charities, and its supervision in a general sense over all Penal and Charitable Institutions in the State; and it is indeed gratifying to know that we can now point with pride to such an organization,

and feel that through these trusted agents, safeguards of mercy and justice, our poor and afflicted will be kindly dealt with and shielded from all harm, and our criminals will not be abused, but shall be protected and humane consideration vouchsafed unto them.

Irregularities, mismanagement and abuses will creep into public institutions of every country; North Carolina is no exception to this statement; nor are we as a people more prone to these ill uses than our neighboring States, but human nature is very much the same the world over, and the "flesh is weak" when subjected to temptations.

North Carolina, ever foremost in good works and noble deeds, and early recognizing the necessity for State supervision in the control and management of all charitable and penal institutions within her borders, was not slow to make provisions whereby this object might be attained, and in Article 11, Section 7 of our State Constitution we have the authority for the establishment of a Board of Public Charities, "to whom shall be entrusted the supervision of all charitable and penal institutions, and who shall annually report to the Governor upon their condition, with suggestions for their improvements." It was not, however, until 1869 that the General Assembly "proceeded by concurrent vote to select five electors, who shall be styled the Board of Public Charities of the State of North Carolina"; and at one time so much authority was vested in this organization that no change could be made in the management of State institutions without the advice or consent of this Board; but this act has been repealed, and wisely so, I think, as its enforcement could not but engender dissatisfaction, but would necessarily produce a division of authority.

The history of the existence of this Board of Charities, in its labors of love and efforts for the amelioration of suffering humanity, from its first organization until now, would be but the portrayal of a struggle for life under great disadvantages and almost insurmountable difficulties, with but little manifestation of appreciation by our law-makers and with very little assistance and coöperation from the people at large. It would be but the repetition of known facts and a trespass on your valuable time were I to attempt to recount the many trials encountered and the signal failures made in trying to accomplish the purposes for which they were created, all because they had not the funds necessary to meet absolute

expenses in carrying on their work. These facts and others pertaining to this subject were most graphically set forth in an able paper by Dr. K. P. Battle, Jr., read before the Society at its annual meeting at Elizabeth City, in 1889.

Suffice it to say that, though having to labor under adverse circumstances, it still exists, and is to-day an honor to our State, and has accomplished more this year than ever before in the history of its existence.

Heretofore the Board was empowered to meet four times annually, viz: in January, April, July and October, and if it was deemed proper and necessary, more frequently, and yet provision was made for payment of expenses of only one annual meeting; but the last General Assembly, evidently appreciating more fully the responsibility of their labors, repealed these restrictions, and members are allowed their actual expenses for each and every meeting, and as a great deal of work falls upon the shoulders of the Secretary, he is allowed compensation for the time actually engaged in attending to the duties of his office and the cost of all stationery used.

While probably it was contemplated that they would meet quarterly, it is now quite likely that only semi-annual meetings will be necessary, unless the development of unexpected causes should require more frequent sessions, which of course will be regulated by the members of the Board.

The Board of Charities, in obtaining the desired information, have adopted an admirable method whereby they can learn directly of the conditions and management of institutions under their surveilance, and that is by sending out the following notice to different gentlemen in the various counties who are known to be men of good standing and excellent character, asking their coöperation and assistance in acquiring the needed information.

"DEAR SIR:—In pursuance of authority vested in the State Board of Public Charities to inspect the several penal and charitable institutions throughout the State, by the members of said Board, or "otherwise," it has been determined by the Board that the most effective method of proceeding would be the organization of visiting committees of three citizens in each of the counties of North Carolina. To this end the Board asks the coöperation of

humane and patriotic citizens to assist in the effort to ascertain the condition and management of all jails, poor-houses, work-houses, etc., in each county. No compensation is proposed for this service. It will not be requested of any but citizens of high character and public spirit, who will be willing at certain periods to visit the institutions named, and exercise a moral supervision over their conduct and operations. Will you kindly accept this charge for your county? It is proposed to forward to you blanks with suitable inquiries, to be answered by the officials in charge, and returned to this office. These will be of great value in ascertaining the true condition of the institutions named within the State.

"It is not believed that the moral effect of personal visits from influential citizens in each county can be surpassed by any other form of inspection or superintendence.

"The Commissioners of Public Charities receive no compensation for their own services, and therefore consistently ask the aid of their fellow-citizens in a duty imperatively needed in our midst. It will be perceived, on reflection, that no board of a limited number could adequately perform it in person; nor could the work of paid officials (even if there were funds appropriated for said purpose, which is not the case) be comparable with the labors of public-spirited citizens inspired by pity for the unfortunate and patriotic devotion to the best interests of the people.

"If you will accept the chrrge in behalf of your county, please sign and forward the enclosed postal card. If your engagements do not permit you to accept this position, will you kindly forward to the Board the name of some citizen whom you will suggest, and who could probably serve?"

[Signed by the Secretary of Board of Public Charities.]

Having secured the services of the desired number of citizens, blanks containing the following questions relative to the "homes for aged and infirm" (formerly "poor-houses") and work-houses and jails are forwarded them to be properly filled out and returned to the Secretary of the Board, as indicated in the notice of instructions they receive:

1. Please state the situation of the "Home for the Aged and Infirm," and how far from the county-seat

2. Give the number of buildings, size of each, and state of what material built.

3. How many rooms in each building?

4. How are the buildings ventilated?

5. What are the means of protection?

6. How is the supply of water furnished for drinking, cooking and bathing purposes?

7. How are the buildings heated in winter?

8. How many inmates can be comfortably accommodated with the present arrangements?

9. How many are now in the care of the institution?

10. How many of these are able to work?

11. How many are helpless or bed-ridden?

12. How many are in voluntary confinement?

[*Note.*—If any work-house is attached to the Home, please give all particulars that would correspond with these questions under "Remarks," or on a separate sheet.]

13. Please give the names of such persons belonging to the Home as are under involuntary confinement, stating if insane, imbecile, or idiotic, here or on list attached to this report.

14. What is the amount and kind of food allowed daily to each inmate?

15. What is the average weekly cost of maintenance of each inmate?

[*Note.*—If this question cannot be answered, for any reason, please give the aggregate cost annually to the county for three years past, with the average number accommodated, if practicable.]

16. State if any veteran soldier is an inmate of the County Home, and if so, please give name, regiment and company, and whether in receipt of pension or not.

[*Note.*—This is not for publicity, but the information is requested for the benefit of the veterans.]

17. What is the name and postoffice address of the keeper or overseer of the Home?

18. What pay does he receive, and is his compensation in money altogether, or are there any perquisites?

19. Is he industrious, sober and discreet?

20. What is the name and address of the physician who attends the inmates?

21. What does he receive for his services?

22. How many inmates were in the Home on December 1, 1891?

23. How many admitted since that time up to March 1, 1892?

24. How many deaths during that period, and from what diseases?

25. How many discharges from other causes?

26. How many inmates assist in any part of the farm or garden work?

27. How many could be employed in any light work for their comfort or pleasurable occupation and the benefit of the Home?

28. If any could do some light work, such as the making of small articles, what do you recommend, and what amount of means, if any, would be required to start and maintain the same?

29. Give a general description of the premises. Are they well arranged, neat and in good condition, or dilapidated and out of repair?

30. How many acres of land belong to the Home (formerly known as the "Poor-House Tract"), and what is the quality of the land?

31. How much is in cultivation, and what stock is kept?

32. What crops are raised on the land, and how are the products used?

33. What vegetables are raised for summer and winter use?

34. Are houses and yards protected by shade-trees?

35. Are the ashes and manures saved and used in improving the land, or any green crop of peas or clover turned under for that purpose?

36. Is any provision made for religious services on Sunday, or any other day? If so, to what extent, and by whom?

37. Are there any children in the Home? If so, why? If any of these are capable of taking care of themselves now, or soon? have any steps been taken to assist them, or to place them in orphan asylums, or private homes?

38. Has any punishment been afflicted upon any inmate since admission? If so, upon whom? By whom? What punishment and for what offence?

39. Is there any system of out-door relief to the poor for support in your county?

40. If so, how many persons are thus supported, and at what average rate?

Remarks.

[Left blank for any additional information.]

QUESTIONS CONCERNING PRISONERS AND PRISONS.

1. Of what material is your county prison built?

2. Is it fire-proof?

3. What means are there for extinguishing fire?

4. What is the size of the building?

5. How many stories high, and how many rooms or cells for prisoners?

6. State the size of the rooms or cells and number placed in each.

7. Are the windows closed or in any way obstructed? If so, how and why?

8. Are there any means of ventilation except by the windows?

9. What are the means of heating the building in winter?

10. Are the prisoners subject to much suffering in cold weather?

11. What amount of bedding and covering is allowed, and is furnished to each prisoner?

12. What part of the prison is occupied by the male, and what part by the female, prisoners?

13. How often is cool drinking-water furnished during the day?

14. What is the daily allowance of food to each prisoner?

15. What means are used to preserve the cleanliness of the jail?

16. What disposition is made of the excrement?

16. Is the prison free of vermin? If not, what steps have been taken to secure that result?

18. Has punishment been inflicted on any prisoner since confinement? If so, upon whom? By whom and by what authority? What punishment and for what offence?

19. Are the prisoners allowed to have intoxicating liquors?

20. Do the prisoners receive any ministerial services on Sunday, or at any other time?

21. Please give the number, color and sex of prisoners now in confinement; also offence, and date of confinement, and term if sentenced.

22. Please give the number, color and sex and offence of all prisoners under confinement from December 1st, 1891, to March 1st, 1892.

23. How many deaths during the period above named, and from what cause?

Remarks.

[Left blank for any additional information.]

Unfortunately for the ultimate purposes desired, I am informed that there is a feeling of indifference, if not antagonism, manifested by some of the County Commissioners and Superintendents of Health, upon the grounds that these "vigilant committees" of citizens, if I may be pardoned for terming them such, are in a measure usurping their work and transcending their authority. Now, never was there a graver mistake made, for the sole purpose and object of these citizens is to ascertain all the facts relative to the care and management of the charitable and penal institutions, and act in conjunction with the regular authorities in bringing about a better condition of affairs generally, and abolishing any and all irregularities that may be found to exist. It is always known by the superintendents of these institutions when they may expect a visit from a committee of the Grand Jury or the County Commissioners, and any abuses or irregularities, if such did really exist, could be easily suppressed or hidden from view during these short, superficial, and oftentimes imperfect, examinations; whereas this tendency is in a great measure overcome by the unexpected and assiduous visits from one or more of these officially appointed citizens.

In many of our county institutions a comparatively good system of management prevails, the patients are supplied with proper diet suitable clothing, but there are many, and I fear they are in the ascendancy, where nothing but the poorest and coarsest food is provided, and almost no attention paid to its preparation and variation, and the inmates clothed with the scantiest of garments consistent with decency and civilization.

In this connection it seems to me greater good could be accomplished and better results obtained, if more care was paid to these vital necessities. Another matter deserving of great attention is the personal and general hygiene of these unfortunate beings, for if "cleanliness be next to Godliness," then there are many of them, I fear, who, if they ever possessed any of the divine in their nature, cannot now lay claim to that attribute.

In visiting a county home on one occasion, I was very forcibly struck with one of the inmates whose appearance was repelling from the large amount of "real estate" he carried on his person, and propounding a question as to the frequency of his bathing, he he informed me that "he washed about once a year." And this, too, not far from many of our homes, and in this century of en-

lightenment and civilization. Gentlemen, is there not great need for improvement and a systematic supervision in some of our institutions? In a home of one of our western counties there is confined a lunatic, "harmless and incurable," who, under the influence of her delusions, is guilty of incoherent actions and language, and to correct this woman she is whipped or thrashed by the authorities of the place as though responsible for her actions caused by a diseased mind. This case, I am gratified to say, was brought to the knowledge of the Board of Public Charities through a member of the "Citizen Committee," and steps were immediately taken to prevent the further perpetration of this outrage upon an unfortunate woman devoid of reason; and yet, I dare say, it was done through ignorance and not with the intention of maltreatment or cruelty. Other incidents might be cited showing the necessity for better and more intelligent management of these institutions, but are not necessary.

Before concluding this subject there is a suggestion which I wish to make relative to the county criminals and their employment on the farms in connection with the county homes.

All of us recognize the necessity for the establishment of work-houses in every county within our State, and my suggestion would be this, viz: Have each work-house established in close proximity to the "Home for the Aged and Infirm," both under the management and supervision of one superintendent, and let all criminals sentenced to terms of imprisonment for ten years and under, be sent to these county work houses, and under the security of guards, made to labor on these farms, and thus be a source of revenue to the county, in that their labors support the county poor, and in a great measure make the work-house and home self-sustaining.

Several counties within the State have established work-houses and derive a great deal of service from the labors of their inmates, many of the convicts being used in improving public roads, but it seems to me preferable that they should be made to work on the farms, and thus be self-sustaining and support the poor and afflicted inmates of the homes, a great majority, if not all of them, being unable to do manual labor, save of the easiest kind.

In conclusion, I shall indeed feel gratified if these incidental observations shall bring more forcibly to your minds as physicians the necessity for improvement in the management of these institutions, and elicit your hearty coöperation and influence in behalf of any agency which has for its ultimate purpose the accomplishment of this object.

REPORT ON THE PRACTICE OF MEDICINE.

By J. W. McNeill, M.D, Chairman, Fayetteville.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

My first duty is to express my very high appreciation of the honor conferred upon me in being selected as Chairman of so important a Section as that of the Practice of Medicine. This branch of our study comprehends everything pertaining to the knowledge and cure of disease, and is the focus, or concentration of all the other branches of study. The Practice of Medicine extends in every direction, to the very boundaries of human imperfections and sufferings. And the practitioner must ever bear in mind that the great aim of his calling is not merely to learn the nature of the human frame or organs, or to know the normal functions of these, or the morbid conditions which affect them, or alone the remedies to be used in practice, but the chief object is to prevent, alleviate and cure diseases.

Forty years ago, when Dr. Williams announced that his practice would be restricted to the treatment of eye and ear diseases, it needed courage to face the universal condemnation and denunciation of the medical profession. Now, no organ of the living body is deemed so small as not to need the laborious work of well-trained investigators, who may, by diligent application, find out some of the many hidden wonders of creation. This has made the body of knowledge under the term Practice of Medicine so copious and complex that it requires diversity of cultivation that it may be fully mastered—no one mind, however endowed, being equal to the task of compassing all that has been ascertained by the work of the specialists.

With these facts before us, it could hardly be expected that, in my notes on the Practice of Medicine I could more than give a general outline and touch upon only a few special points.

The Practice of Medicine is far from perfect: the fact that each one has his own method indicates instability and doubt. For example, Professor W. A. Hammond, in the treatment of weak heart,

recommends that large doses of digitalis be administered—2-drachm doses of the infusion at first, and if we desire to obtain the fullest possible benefit from its use, it must be given in increasing doses. He does not believe in what is called the cumulative effect of this drug.

Professor A. L. Loomis, dwelling upon the use of this drug, says that there is no other drug which requires so much skill in its administration. The best results are obtained from small doses; for example, only 1 or 2 drops of the tincture; if more be given, only a single dose at bed-time. That the ingestion of more digitalis than is requisite to overcome the insufficiency does positive harm. With the leading lights in the medical profession, in this nineteenth century, differing so widely in the treatment of diseases and the use of old remedies, it is evident that every practioner must draw his own conclusions as to the real value of remedies and their mode of administration. It is not surprising, the tendency of the present day to therapeutical nihilism, after physicians have seen the danger in following the leadership of unsafe guides in their ill-directed and reckless medication. The influence of some of our most prominent medical thinkers has been opposed to the value of medicines in the treatment of disease. But the true student of the practice of medicine has been able from his elevated and broad standpoint to draw many valuable deductions from these things, and one of the most valuable is, that man is greater than his disease, and in administering to him a living being is under treatment, and not simply a disease to contend with and subdue. The thorough thinking practitioner can see over and beyond the heroic work of the reckless leader, and also of those whose tendency is to do nothing, leaving everything absolutely to nature. And as a balance-wheel he has regulated all the machinery of the practice of medicine and been the cause of a steady movement forward of the wheels of progress.

The bacteriologists have been at work. Special micro-organisms have been more thoroughly investigated. Koch's method for the cure of tuberculosis had our hopes raised to a high pitch a year ago; the introduction of this method we had hoped might mark a new era in the advance of bacteriology and the treatment of disease, but within the last year there have been no new developments in his plan of fighting the bacilli of tuberculosis.

The typhoid fever bacillus has been investigated by Janowski. He has studied the effect upon this organism of sunlight, various temperatures and nutrient media. He has not, however, succeeded as yet in finding any diagnostic signs by which this organism can be differentiated.

Drs. Espine and Marignac have presented an interesting article upon the bacillus of diphtheria. They found the bacillus of Hoeffler in all cases of this disease. Brieger and Fraenkel have demonstrated the existence of a ptomaine produced by the bacillus of diphtheria. A change of opinion has of late taken place as to the nature of pneumonia, which is now almost universally regarded as a specific infectious disease, depending upon a micro-organism. The diplococcus pneumonia of Fraenkel is the most constant organism in lobar pneumonia, and is now believed by many competent authorities to be the specific agent of the disease.

While the etiology of all diseases has been rendered more complete and more easily understood by the work of the bacteriologist, the therapeutist has not been idle in the study of antisepsis. As these special organized germs have been found to take an essential part in the diseased process, if not to produce them, the group of remedies which are destructive to the germ without injuring the vitality of the human being, have been more thoroughly investigated and understood. Though specifics in medicine, even in this group, are as yet very few.

B. F. Ackley has used the biniodide of mercury with asserted success in the treatment of diphtheria and typhoid fever, and believes the drug to be an antiseptic and germicide of great value. For diphtheria he has employed this formula: Biniodide of mercury, grain ij, saccharated pepsin ʒ iij. The powder is used as a local solvent and germicide, placing a quantity of it, proportionate to the age of the patient and the severity of the symptoms, on the tongue every hour. In this way the drug was found to have a germicidal effect on the membrane, hastening solution of the exudation even in severe cases; the symptoms subsiding in the course of twenty four hours. In cases of typhoid fever, especially if the treatment was instituted early, the drug has produced such satisfactory results that in no case has a patient been confined to his bed for a longer period than two weeks. For the treatment of this disease a mixture of 1-10th to 1-12th gr. and 10

grains of saccharated pepsin was given every four or six hours. C R. Illingworth has been able to abort scarlet fever in five instances by the internal and external use of the biniodide of mercury.

The preparations of mercury still retain the lead as therapeutical agents in destroying the germ peculiar to any disease after it has once taken hold. The intra-tracheal injections of creasoted oil has been thoroughly investigated by Dor. His conclusions are that a strength of 1 to 20 is admirably borne by the majority of patients. Thirty-one minims may be injected twice a day. No complications provoked by the use of the injections were ever observed. The patients never had hæmoptysis, fever or stitch in the side, which could be attributed to the medicine, and digestive troubles were not produced analogous to those seen when creasote is administered internally. Olive oil, sterilized by boiling, should be employed as an excipient. It is possible to determine whether the oil has reached the diseased part of the lung by the production of bubbling râles. In the majority of cases under the influence of this treatment expectoration diminished, pain in the side disappeared, appetite returned and weight increased. It is principally tuberculous patients in the first or second stage who are benefited by the treatment; for patients with numerous cavities it would be much better to choose an antiseptic more powerful than creasote in treating by this method—camphorated naphthol appears to answer this purpose.

The specific action of the micro-organisms in disease is now attributed, in large part, to the formation of ptomaine, and the whole question of immunity and protection is now being worked out in this direction, a special stimulus having been given of late in the discovery by Hankin of the so-called defensive alkaloids. The Klemperer brothers, by the subcutaneous injections of the filtered bouillon cultures, or by the injection of the glycerine extract, found that immunity from pneumonia was produced, and that the blood serum of a subject having this power of immunity, when injected subcutaneously into a patient actually suffering from the disease, very promising results were obtained.

The subject of fever and antipyresis has been ventilated considerably within the last year. Cantani claims that fever is an essential, and, to a certain degree, a beneficial reaction to acute disease. This reaction is necessary to bring about cure. The temperature alone is not a measure of the gravity of the disease. A

moderate degree of fever may be due to a want of reactive power on the part of the organism, a high degree to the energy with which the organism defends itself against the invasion of the disease. The fever itself, therefore, has a favorable effect, and may be of use in various ways—by diminishing the vitality or virulence of the living causes of disease, and by raising the temperature of the tissues and of the blood, by altering the nutritive soil in the tissues, and rendering it less favorable for the growth and development of the germ of disease, in fact, by sterilizing the body. The proper remedies for fever should be such as act on the cause of the disease. In this way quinine acts in malaria and mercury in syphilis. The antipyretic remedies, as antipyrin, have no special action on the cause of fever. They lower temperature by increasing radiation of heat from the body, and diminish heat-production. They do harm by interrupting the course of the fever, diminishing the means of defense of the human organism, for a diminution in the production of heat is equivalent to a diminution of the vitality of the human organism and of the power of resistance. There are, therefore, no general antipyretics. The most that can be done is to diminish the accumulation of heat in the febrile body without lowering the production of heat. To this effect the cold bath, the cold pack, cold douches, the administration of large quantities of cold water, either by the mouth or enema, are recommended.

Maragliano records the results of a series of investigations as to the state of the vessels in fever and in antipyresis. Kairin, antipyrin, thallin, salts of quinine and salicylate of sodium were used in the experiments. It was determined that antipyretics in general caused vascular dilatation, which continued in the case of fever as long as the influence of the remedy continued. Osler says that antipyrin, antifebrin and phenacetin have had a thorough trial, and in many forms of fever, although they still have their advocates, the general opinion of clinical physicians seems decidedly against their systematic employment.

Venesection has to some extent occupied the attention of physicians. The reproach of Van Helmont, that "A bloody Moloch presides in the chair of medicine," cannot be brought against the present generation of physicians. During the first of this century the profession bled too much, but during the last decades we have certainly bled too little. Osler, in his recent practice, says pneu-

monia is one of the diseases in which a timely venesection may save life. Richardson records the case of a woman with symptoms of peritonitis and a temperature of 109° F., in which he withdrew 22 ounces of blood from a vein of the arm after antipyretic remedies had been freely administered without avail. The temperature fell to 101° F., and for a time the urgent symptoms were relieved. The improvement continued for about four hours, when, despite assiduous treatment, the temperature again rose to 109° F., and death soon followed. The clinical lesson to be drawn from these observations is that, while the removal of blood, as well as the use of the ordinary antipyretics, have the effect of reducing the febrile heat, they do not control the process of zymosis on which the febrile condition depends.

In enfeebled conditions of the heart and in debilitated conditions generally nitro-glycerine has been shown to be a wonderful remedy. Its more lasting effect over that of nitrite of amyl renders it a more reliable remedy in extremely enfeebled conditions. C. D. Palmer asserts that he has cured a case of heart trouble with the drug. The patient had a fatty organ, whose action was irregular and feeble, but there was no valvular lesion. A drop of a 1 p. c. solution, three times a day, was administered, and gave immediate relief. J. N. Cleveland reports the case of a woman 65 years of age with an irregular heart, very bad general condition, and almost dying from uræmic poisoning and cardiac failure, relieved by the administration of drop doses every hour of a 1 p. c. solution of nitro-glycerine. A case of asphyxia from gas, successfully treated by hypodermic injections of nitro-glycerine, has been reported by C. W. Goss. It was an extreme case. Hypodermic injections of 1-100 gr. were given every ten minutes. Half a minute after the first dose the pulse began to be noticed at the wrist and grew gradually stronger, and at the end of fifteen minutes consciousness had returned and the patient expressed himself as being quite well. The deduction can properly be drawn from cases of this kind that the prime medication in such cases is to establish the action of the heart, no artificial respiration being necessary, as the breathing always improves with the increase in volume of the pulse.

The recent recurrence of influenza has developed considerable discussion in the literature of the past year. The study of the meteorological conditions under which it prevailed has strengthened

the theory that humidity of the atmosphere has much to do with its development. Maurel emphasizes the preference of influenza for low countries and the valleys of large rivers. Kowalki describes influenza as a specific disease, occurring under conditions constantly the same, due to atmospheric influences and complicated by the pathogenic germs at hand. No special new forms of bacteria were discovered which there is any reason to believe have anything to do with causing the disease. There is no recognized specific against the disease. Quinine more nearly approaches this position than any other remedy. Eichhorst, with subcutaneous injections of pilocarpine, had strikingly speedy and successful results. He says that pyrexia may be met by cold sponging, cold affusion, the cold pack or the cold bath. Antipyrin, antifebrin and kindred remedies were largely used during the epidemic. Giovanni, however, wisely warns against the use of the ordinary antipyretics in the treatment of influenza because, though they may lower the temperature, they debilitate the vital powers of the patient. He recommends rather tincture of strophanthus with milk and brandy, and in grave cases inhalations of oxygen and subcutaneous injections of strychnine.

Hypnotism of late has been extensively used and experimented with in many nervous conditions. It will probably be more and more recognized by the medical profession in the future as the horizon of scientific investigations in the psychical realm broadens

In conclusion, I would suggest, after reviewing the field of matter embraced under the head of The Practice of Medicine, that each practitioner, from his own experience in the treatment of disease, must draw his own conclusions as to the real value of remedies, and be slow to adopt every new wind of doctrine that comes to us, not to follow, unthoughtedly, the rush of the tide of popular practice; but, being founded on true principles, to study the utility of drugs when rightly administered, and, above all things, to find the limits of their utility, for he who is unmindful of the injury done by reckless medication is on as unsafe ground as the most pronounced therapeutical nihilist. Also that the study of the materials of Nature and her forces be as thoroughly executed as that of the study of Materia Medica.

A FEW PLAIN WORDS ON GLAUCOMA.

By Richard H. Lewis, M.D., Surgeon for Diseases of the Eye, Ear, Throat and Nose to St. John's Hospital, Raleigh, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

The relatively large number of cases of absolute and hopeless blindness from neglected glaucoma coming under my observation has suggested to me the propriety of making an effort to do something in the way of prevention of such sad occurrences. Blindness from this cause is peculiarly deplorable for the reason that the afflicted one is not only cut off from all perception of light even—a deprivation that only the blind who retain the power of discriminating between day and night can fully appreciate—but is a sufferer in many instances from repeated and long-continued attacks of severest pain. So that, if, by what I shall have to say, I prove to be the indirect means of saving not more than one person from such a fate, I shall feel that this imposition on your patience was not without justification.

Before going further, I wish it to be distinctly understood that in using the expression "neglected glaucoma" I did not mean to indicate an intention to lecture my brethren of the general profession, because, as a matter of fact, I believe that, in most instances, the patient is to blame. But I cannot in candor say that it is always the patient's neglect. It must be admitted that, sometimes, the failure of the physician first consulted to make a correct diagnosis, which, it should be said, is not always an easy matter, consigns a curable case to hopeless and life-long darkness. Consequently, since the best informed amongst us is liable to become more or less rusty in his knowledge of a disease that is so rarely brought to his attention as the one we have under consideration, it would not be amiss to emphasize a few salient points bearing on its diagnosis and early management. I shall not attempt to draw a complete and finished picture of the malady, filled in with minute details and nice touches, but a simple sketch, made with a few broad strokes, representing only the essential features manifest to the ordinary medical observer. And so, a citation of the ophthalmoscopic signs, and all discussion of its etiology and pathology, as well as the considera-

tion of whatever is exceptional, will be purposely omitted as not coming within the limited scope of this paper.

For our purpose it would be best to consider only the three ordinary forms of the simple or chronic, the subacute and acute inflammatory. The symptoms common to all forms are, failure of sight, increased tension or hardness of the eye-ball, dilated pupil, and contraction of the visual field, especially towards the nose. The most characteristic of these is increased tension, which is to be ascertained by gently palpating the globe through the upper lid as the patient looks at his feet, very much in the same way as for pus in a suspected abscess. If not familiar with the feeling of the normal eye, a comparison should be made with the other eye, if unaffected, or with the examiner's own. The next most important symptom is dilatation of the pupil, particularly if it does not respond to light. A fact of great assistance, in a negative way, in helping to a correct diagnosis, is that the subject of glaucoma is almost sure to be past middle age, or old enough to wear spectacles for reading. And the first thing one suffering with chronic glaucoma, as a rule, notices, is that his spectacles do not suit him as well as they once did, and that he cannot find any that will bring his sight up to the original standard. The need for frequent changes in his glasses is often a premonitory sign. He will then complain that at times there is a fog or haze over his sight, lasting for a greater or less period, and then passing off entirely for awhile, only, however, to return again at shorter intervals, denser in character and hanging over him longer. While this fog is present he will tell you, usually, that when he looks at a lamp or other light it seems to be surrounded by colored rings, haloes or rainbows—a phenomenon only found in glaucoma, except when produced by mucus on the cornea, which can be easily removed by winking. Pain, if present at all, will be slight and occasional. A superficial inspection of the eye will show the sclerotic white, the cornea clear and bright, and, in a word, the eye perfectly normal in appearance, save a slight dilatation and some sluggishness of the pupil. The tension will probably be a little increased, and the field of vision somewhat narrowed.

In the subacute form, after, in all likelihood, a few premonitory attacks embodying the symptoms just enumerated as belonging to the chronic, there will be a more rapid failure of sight—pain in, but chiefly around, the eye, over the brow, in the temple, down the

side of the nose, and, sometimes, all over that side of the head, will be complained of—the globe will be very distinctly hard—there will be some redness of the ball, of a rather dusky character, most marked just behind the sclero-corneal junction—the cornea will look rather steamy—the anterior chamber will generally appear shallow, the pupil will be dilated and probably oval in shape, and, instead of being black, it will be of a yellowish green color.

The acute form is simply an exaggeration of the subacute. The onset is more rapid—the tension greater—the pain more severe—the redness more intense, in some instances extending to the whole conjunctiva with swelling of the lids—occasionally there is photophobia—the pupil is more widely dilated, though not necessarily *ad maximum*, and fixed—the cornea looks more hazy and is insensible to the touch of a light, soft object, as a feather or wisp of tissue-paper—and sometimes there is fever with nausea and vomiting. Inasmuch as the mistake has been made, I will take the liberty of saying that, should you have a case of supposed remittent fever, who, at the same time, has a bad eye, do not be satisfied with your diagnosis until all doubt as to the nature of the ocular trouble is removed, and *do not wait for him to recover from the fever, or "bilious attack," before attending to his eye.*

The diseases with which inflammatory glaucoma might be confounded are, iritis, conjunctivitis, cataract, inflammation of the cornea and neuralgia. There are many resemblances between acute iritis and acute glaucoma, and there are many differences, but the similar features, unfortunately, are of a coarser and more easily recognized character than the dissimilar. In order to avoid confusion, I will rest the differential diagnosis on two symptoms, or signs, only—the state of the tension and of the pupil. While in iritis the tension is sometimes slightly increased, it amounts to practically nothing, but in glaucoma it is the pathognomonic symptom, and in the inflammatory form—with which alone iritis could be confounded—it is almost certain to be very distinct and pronounced. The pupil in iritis, if changed at all in size, is smaller than the normal, but in glaucoma it is almost invariably larger than natural, and, in an immense majority of cases, very much larger. If in doubt, compare with sound eye, should there be one, or with a healthy eye in another individual of about the same age and in the same light. Never fail, therefore, to examine more carefully the

pupil in every red eye belonging to an elderly person, and particularly if that eye be free from a muco-purulent or purulent discharge—the presence of this discharge being the characteristic symptom of conjunctivitis. In conjunctivitis the redness of the globe increases from before backward, while in glaucoma, as well as in iritis, just the reverse is true. In conjunctivitis, too, the sight is scarcely, if at all, impaired—in glaucoma it is apt to be very bad.

The change in the color of the pupil, together with the dimness of sight, is suggestive of cataract; but the fact that the loss of sight has been more or less rapid, the signs of inflammation, congestion and pain nearly always present, certainly in the severer forms, and especially the dilated and fixed pupil, signify plainly that the case is not one of simple cataract; while, if the tension be increased, in addition to the above, it settles the question, proving that it is not only not cataract, but is glaucoma.

The only symptom of glaucoma calling to mind keratitis is the haziness of the cornea, but it is slight and generally and evenly diffused, not patchy, as it always is in inflammations of the cornea. The opacity in interstitial keratitis, which, by the way, it should be remembered, is a disease of childhood, although diffused, is denser in some parts than others—the cloud has thin places in it. Again, in affections of the cornea, photophobia and lachrymation are prominent symptoms—in glaucoma they are secondary, if not altogether wanting.

Although in neuralgia of the ophthalmic branch of the trifacial lachrymation with redness of the conjunctiva and occasionally photophobia as well as sensations of dazzling light and colors are not infrequently present, the differential diagnosis is not difficult, even when they are. In the neuralgic affection vision is practically unimpaired, the pupil is normal in size or smaller than usual, the tension is not increased and the sensations of light are subjective and different from the rings or haloes of glaucoma that appear to surround the lamp or other point of light looked at.

It is of vital importance that glaucoma and iritis should not be confounded with one another, for the remedy appropriate to each is generally positively injurious to the other, in some instances actually exciting an attack in a healthy eye predisposed to that particular affection. If the pupil be carefully examined and its size noted the mistake in the application of remedies could not well be made, for it is the most elementary common-sense, it seems

to me, for any one using remedies directed to the pupil to attempt to contract a pupil that is too large and to dilate one that is too small. Attention to this simple rule would insure practically the use of a myotic, eserine sulphate or pilocarpine muriate, in glaucoma, and a mydriatic, atropia sulphate, in iritis.

Having made the diagnosis of glaucoma its early management is very simple. It consists in the *immediate* use locally of a myotic, sulphate of eserine, a drop or two of a solution of a strength varying from one to four grains to the ounce, or pilocarpine of double that strength in the eye, every hour until the pupil contracts, pain is relieved and sight improved, and continued afterwards three or four times a day until the trouble has passed off. Hot applications, purgatives, hypodermic injections of pilocarpine, etc., are sometimes helpful, but such uncertain palliatives should never be depended on, except only when nothing better can be done. Should the pupil not respond to the myotic and a marked alleviation of the symptoms occur in twenty-four hours, or if its use increase the pain and inflammation, as it sometimes does, an iridectomy or sclerotomy, preferably the former, in my opinion, should be done at the earliest possible moment. Acute glaucoma is a disease that allows no dallying in its treatment—the price of sight is *promptness*—and, eserine or pilocarpine failing, the knife is the only hope.

My experience with eserine, while very much mixed, has been, on the whole, encouraging. One case is sufficiently striking to deserve reporting, and the following is a brief account of it :

Mrs. N. J. M., æt 33, was sent to me by my friend Dr. Thomas F. Wood six years ago. At the time of her visit the left eye was entirely blind, presenting the symptoms of absolute glaucoma with scleral staphyloma. She stated that the trouble began in that eye eighteen months before. The right eye was normal in every respect, including acuteness of sight and amplitude of the field of vision, except that the anterior chamber was too shallow, the pupil plainly larger than it ought to have been, and the tension slightly increased. But she had had some premonitions similar to those leading up to the disastrous consequences shown in the left eye, and she was wise enough to seek advice in time. She was given a solution of eserine, reënforced with boracic acid to preserve it, instructed as to its use, and thoroughly impressed with the vital importance of returning immediately for operation should the eserine fail. It worked like

a charm, and for three years sight continued fully up to the standard, but a time came when it did fail, and, true to instructions, she promptly returned for further advice. Her good eye then presented all the symptoms of subacute inflammatory glaucoma, and vision was reduced to an ability to count fingers at a few feet. Thinking that her drops might have lost their efficacy from age, a fresh two-grain solution of eserine was tried before resorting to operation, and the attack was quickly relieved and sight completely restored. Since then her attacks, returning as they have from the beginning in a mild form, usually two or three times a week, have been effectually aborted by the eserine, and when last seen, eight months ago, her eye was in excellent condition with one serious exception, namely, a severe attack of follicular conjunctivitis. Whether the fungoid formations in old solutions that had undergone decomposition excited the inflammation, or it was the result of the long-continued use of the alkaloid I do not know; not improbably the latter, however, as other observers have noticed the same condition after prolonged use of eserine. The effect of atropia on this line is familiar to all, and the persistent instillation of cocaine has been known to cause conjunctivitis granulosa (follicular?) In a letter written just one week ago to-day she says: "My eye improved rapidly after seeing you last, the attacks not averaging more than one once in three weeks up to the present. Within a day or two it looks a little inflamed, but am not suffering very much. Have not had an attack in nearly a month. Can read No. XX at the distance of twenty feet. I continue to use one drop once every day; also use it when I have an attack (more freely she means). P. S.—I forgot to tell you I have had a few times of frequent attacks since I saw you." This case is interesting and instructive for several reasons: the comparative youth of the patient (33), the great frequency of the attacks, two or three a week most of the time—as confirming the opinion that the long-continued employment of eserine will excite the follicular form of conjunctivitis—but chiefly as showing the efficacy of that drug in the treatment of this most dangerous disease of the eye, and that, too, when used once every day, or oftener, for so long a period as six years.* But it

*Just after reading this paper I had the gratification of seeing Mrs. M. and finding her eye in excellent condition, notwithstanding a pretty sharp attack the day before—the first in a month. Save a slight shal-

must be borne in mind that this is a very exceptional case, and that in many instances eserine is entirely without effect, and in some positively injurious. Still it has been known to finally cure some cases, and is, unquestionably, of very great value as a palliative, often relieving the urgent symptoms and saving the eye until more radical treatment can be obtained. Indeed, eserine and pilocarpine, it may be said, are the only medical remedies for glaucoma. And so, every practitioner—certainly those not prepared to do an iridectomy—should make it a point to see to it that either some druggist within reach keeps them, or that he has a small quantity of one or the other of them in his own medicine chest. As eserine deliquesces very easily, it would probably be best to keep it in hermetically sealed glass tubes or in the more elegant form of gelatine discs. Before leaving this subject it is proper for me to add that I have never had any personal experience with pilocarpine in glaucoma, because I have always thought it safest to rely on eserine; but, in the opinion of some it is, if used in double strength, just as effective, and it certainly should be tried if the eserine cannot be obtained.

As a corollary to the above I would say: Every person old enough to wear spectacles, complaining of an impairment of sight not remediable by a change of glasses, should seek medical advice. And especially should this be done if he notices variations in vision, sight being at one time hazy and at another clear, or if he has observed the haloes or rainbows around the lamp. The fog in

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lowness of the anterior chamber it was normal in every respect—vision up to the standard and the optic disc not in the least cupped. The follicular conjunctivitis present when seen eight months before had disappeared under the use of a simple borax lotion prescribed at that time in spite of the continued instillation—daily, if not more frequently—of the eserine collyrium. From this fact I am confident that the conjunctivitis was excited not so much by the long-continued use of the alkaloid as by the impurities resulting from degenerative changes in the solution. I questioned her again as to the character of the frequent attacks, and she stated that they were accompanied by dimness of sight, dilated pupil, hardness of the globe, as well as she could ascertain, and the haloes around the lamp, and were therefore truly glaucomatous. I shall try to wean the eye from the myotic by substituting pilocarpine, the weaker of the two, for the eserine, and gradually diminishing the strength of that. LATER: Pilocarpine was tried, but did not act as well as eserine.

glaucoma generally lifts entirely at times, or it rapidly becomes dense, while in cataract it is always present and deepens very slowly. But just here comes in the main difficulty alluded to in the beginning, and that is, that the party with the cloud of blindness hanging over his life will not seek advice until it is too late, deluding himself with the theory that it is merely a little "cold in the eye," and satisfying himself with "alum curds," rotten apples and such other—"rot."

Fortunately glaucoma rarely ever attacks both eyes at the same time, and consequently it is more than probable that some physician will be seen, if not for that, for some other trouble, before the second eye is involved. If so, and the first eye should be found to have been lost from that disease, he should feel it to be his imperative duty to impress upon the patient, as forcibly as possible, the fact that the same trouble is practically sure to occur sooner or later in the good eye, to insist upon his seeking medical advice upon the very first signal of danger, and to warn him of the fearful consequences of *delay*. Having lost an eye he will be more ready to listen to advice. But there is a rock that sometimes shows in this latitude on which the medical mariner, inexperienced in sailing ocular seas is liable to make shipwreck, and we must mark it plainly on our chart. That rock is secondary cataract—cataract coming after, and consequent upon, the glaucoma. The danger consists in attributing the blindness to the cataract, instead of to the glaucoma, its real cause, thereby permitting the patient to sink into hopeless darkness under the false impression that his trouble is one that can be almost surely relieved, and at any time, after he has become completely blind, that may best suit his convenience. It is true that in most instances the second eye has been ruined before the first becomes cataractous, but it is a danger nevertheless. We will mark it by calling attention to the fact that in cataract secondary to glaucoma the pupil is dilated and does not contract on exposure to bright light, the perception of light indeed being generally lost at that stage of the disease, while, in simple idiopathic, or primary cataract, the pupil is normal, or, if slightly dilated, quickly and promptly responds to variations in the amount of light, the perception of which is good. This would be sufficient to base an opinion upon, but hardness of the globe, enlarged tortuous vessels on its surface and the history of the case would be confirmatory.

Another reason for being careful to make the distinction between ordinary senile cataract and that consequent upon glaucoma is that, by so doing, the patient may be saved, perhaps, a long and expensive journey with bitter disappointment at the end of it.

How to overcome the main difficulty, namely, the carelessness and indifference of the person most interested, is, I confess, a question hard of solution. The only thing I can suggest is for the profession to attempt the education of the people—planting a seed here and there—by calling attention whenever occasion may arise to the fact that any elderly person with marked impairment of sight beyond the aid of glasses and accompanied by any symptoms whatsoever other than a very slowly increasing dimness, shows a reckless disregard of one of God's choicest blessings if he do not promptly obtain the opinion of his physician as to its nature.

Death of Dr. Walter Coles, of St. Louis, Mo.—The saddest of all deaths occurred August 7th in the suicide of Dr. Walter Coles. He took his life with a pistol, leaving a note stating his was a case of euthanasia. He was rapidly losing the use of his lower limbs: "Under such circumstances there was nothing left for me but to make my exit." What a sad death, what a reckless rejection of God's promises. There can be no euthanasia from a pistol-shot by a suicide. There is abundant hope for every paralytic, sufferer from locomotor-ataxia, or any disease, however vexatious. Looking at the poor little part we play in the care of patients, and then looking up at the Great Physician who teaches us how to live, how to be sick and how to die, our calling, with all its vast improvements, is but the work of an apprentice, but even that may be so blessed as to be almost miraculous. There is but one euthanasia and there is but one remedy that brings us to it—that is, the precious blood of Jesus Christ our Lord.

The Three Stages of the Medical Student's Life.—The late Dr. Henry Gawen Sutton, of London Hospital and College, was in the habit of dividing up medical student life into three stages, as follows: "First, he doesn't know; second, he thinks he knows, and then he doesn't know, but he stands on his feet like a man, and gives confidence to his patients."—*Jour. Am. Med. Assoc'n.*

SELECTED PAPERS.

THE TECHNIQUE OF THIERSCH'S SKIN GRAFTING.

By Theodore Dunham, M.D., New York.

The elegance of the result in skin grafting depends on nice attention to certain details. The size of the area that can be covered depends largely on deftness in the operation, and largely on careful preparation, so that no time may be wasted. In the following brief sketch I have tried to map out the operation as it may be done for covering considerable areas of skin deficiency.

Preparation of the Wound Surface.—The surface to be grafted should be one of normal tissues. A recent wound surface, whether from injury or operation, needs only perfect disinfection and then douching with salt solution. A surface of granulations requires more preparation. Wash it every second day with soap and water, and bichloride 1-1,000, and dress with iodoform gauze saturated with balsam of Peru. Dress thus until the surface is level, rosy and firm. This may require two weeks. A few hours before operation apply a wet bichloride compress.

Preparation of the Thigh for Removing Grafts.—The thigh is the most convenient part of the body from which to take grafts. Which thigh is chosen will depend on which side of the table gives the operator the readiest access to the wound to be covered. The day before the operation the thigh should be shaved, scrubbed with soap and water and with bichloride, and wrapped in damp bichloride gauze. Shortly before operation wash with salt solution and apply a salt gauze compress, and cover this by two bichloride towels applied as follows: Let the lower edge of one come below the knee, wrap it around the extremity and secure it by a bandage round the knee; lay the upper edge of the other towel at the groin, wrap it round the extremity, and secure it by a bandage passed round the highest part of the thigh. These towels protect the dressing until operation; at operation they are quickly folded back, one up, the other down, the gauze removed, and the skin is exposed, snugly bordered by bichloride towels.

Instruments, Solutions and Dressings.—Use a razor ground flat

on one side. For an operation of any magnitude there should be two razors, for the edge gradually loses its keenness. A flat retractor with a rounded edge serves well for scraping off granulations. For removing cicatrized borders and scraping irregular surfaces the Volkmann spoon is convenient. A probe is an aid to the fingers in adjusting the grafts. A pair of rough bathing mittens should be boiled an hour and placed in salt solution. A quarter of an hour before the operation the instruments should be laid in 1-20 carbolic acid. Before being used they are dipped in salt solution. Throughout the operation the only solution is one of sodium chloride in water, 6-1,000. Two large tin pails of this solution should be made a few hours before operation and boiled an hour; one should be allowed to cool, the other kept hot. At operation a bowl of this solution will be wanted for sponges, another for the grafts. These should be kept at body temperature, which can be maintained by mixing from the two reservoirs. There should be a third bowl of salt solution for the hands. For the dressings sterilize loose gauze by soaking it over-night in bichloride 1-1,000. Sterilize a few gauze bandages in the same way. Before operation place a portion of each in salt solution. Cut strips of gutta-percha tissue three-quarters of an inch wide and long enough to reach across the wound and lap over on both sides. Wash them with soap and water, soak over-night in bichloride 1 1,000, and place them in a dish of salt solution.

Position of Patient on Operating Table.—Place pillows beneath the patient's hips, back and head, and place a rest beneath the leg so that the thigh may form a bridge half a foot above the table. If the area to be grafted is upon an extremity, suspend the extremity vertically.

Operation.—Give ether. Surround the field of operation with bichloride towels. Disinfect the hands with especial thoroughness. Scrape off all granulations and cicatrized borders with the edge of the retractor and the Volkmann spoon. Wash clean with salt solution, and at once apply a compress of salt gauze and bind it on tightly with a gauze bandage to check oozing. Throw back the towels from the thigh. Let an assistant, with the rough mittens on his hands, grasp the thigh on either side and draw the skin tense. The operator places his left thumb on the skin at one end of the thigh to steady it, lays the razor upon it at a slight angle, makes a

sawing motion, and at the same time increases the angle until the razor bites into the skin. As the sawing motion is continued, a graft is shaved off comprising a third or half the thickness of the skin. It may be made nearly the length of the thigh. The widest grafts are got from the comparatively flat surface over Scarpa's triangle. Place the graft in a dish of lukewarm salt solution. Continue for ten minutes cutting grafts and putting them into the salt solution. Then remove the compress from the surface to be grafted. Oozing will have ceased. Apply the grafts to the surface. They will have curled, the raw side turned in. To uncurl them, place one end on the surface to be grafted and uncurl it. Now, by laying a finger on the graft and making a rapid to-and-fro motion the graft can be made to uncurl continuously along its entire length. Once flat, the graft may be removed to the position desired by the fingers, and more delicate adjustments made by the probe. If the borders of the surface are abrupt, let the grafts run up the borders and lap over the surrounding skin. Let the edges of the grafts lie in apposition or overlap. Thus cover in the whole area. Wash off any blood by letting salt solution trickle gently from a sponge over the grafted area. Now take a strip of the gutta-percha tissue. Lay one end on the sound skin at one side of the wound and place a thumb upon it; then, with a winding motion, lay it across the wound Let the next strip slightly overlap the first. Apply strips thus slightly imbricated until the whole grafted area is covered. If the area is upon an extremity, take a bandage from the salt solution and make a snug spiral over the gutta-percha tissue. The grafts will now be all in perfect position and secure from disturbance by the further dressings. Wring gauze lightly from the salt solution and apply it. Cover it by a sheet of gutta-percha tissue to maintain moisture. Apply a layer of bichloride gauze and of absorbent cotton and a bandage. Immobilize by splints suitable to the region. On an extremity coaptation splints are the best.

The pearly-white oozing surface from which the grafts have been taken is best dressed, according to Dr. Abbe's recommendation, by covering it with a sheet of gutta-percha tissue. Beneath this a new epidermis forms in the course of week, and the dressing need not be disturbed during that time.

Subsequent Dressings.—The grafted area should be dressed every

second day. The same strict aseptic precautions are observed as at the operation. The gutta-percha strips are removed as follows: Pick up one end of a strip and curl it back sharply upon itself; strip it from the grafts beneath, keeping it all the while sharply curled. By observing this manœuvre all danger of lifting or of shifting the grafts is avoided. Douche the surface with sterilized salt solution. Sponge off the strips of gutta-percha tissue in bichloride solution and rinse them in salt solution. Dress exactly as at the operation. On the second day the grafts will be rosy. Any abrupt margins will have become reduced and the surface be nearly flat. After the tenth day no dressing is required; but it is well to wear a cloth spread with vaseline for a few days longer.

Using the foregoing technique, I have covered an area of seventy-two square inches in two hours, including the dressing. This is at the rate of one minute and three-quarters to a square inch. Smaller areas would require proportionately more time.

Case.—C. A., a Russian girl of 12 years, fell on the curbstone and was injured by the wheels of a passing ice-cart. From the right lower extremity was torn a flap comprising skin and subcutaneous tissue. It involved an area on the inner side of the thigh, knee and leg, and extended outward beyond the ligamentum patellæ and crest of the tibia. She was carried unconscious to her home. The accident occurred August 19th, 1889. The wound was dressed and the limb confined in splints. In October the knee was assuming a state of partial flexion. A plaster splint was applied, beginning below the wound and extending to the roots of the toes; and another above the wound, extending to the top of the thigh. The two were rigidly united by an arch of iron, so shaped as to bring the limb into a straight position. This extension caused no great pain, and the more perfect immobility gave relief.

On November 23d I grafted the area, using in all essentials the method described above, and taking the grafts from the opposite thigh. The girl's general condition was poor, and, rather than prolong anæsthesia beyond an hour, I refrained from completely covering the denuded surface. When the granulations have been scraped away the surface brought to view consisted of the deep fascia everywhere except over the tibia, and here the periosteum was bare. The outer one-third of this surface, comprising the portion external to the ligamentum patellæ and crest of the tibia,

was entirely covered with grafts. The inner two-thirds of the wound was not entirely covered, but was spotted with grafts, leaving intervening spaces about half an inch wide.

The immediate cessation of pain after the operation was striking. Before operation she had great pain at every dressing, and usually had to be held on account of her struggling and cries. After operation, and at all subsequent dressings, there was no pain whatever On the eighth day the portion external to the ligamentum patellæ, which had been completely covered, had a soft, pliable integument, with a tracery indicating the margins of the grafts. The isolated grafts were proliferating at the edges, and granulations had sprouted between them. In four weeks the area was firmly healed. The splint was soon removed. There was scarcely any motion at the knee. A cylinder of sheet lint, spread with vaseline and stiffened by a covering of oiled muslin, was suspended round the limb to guard it from harm. From time to time moderate force was used to aid flexion at the knee. In March, 1890, the knee came to a right angle, and she went upstairs one foot after the other.

Photographs taken in May, 1892, nearly two and a half years after operation, show the perfect result obtained.

The following points in regard to Thiersch's method of skin grafting are brought out by this case :

At once after operation there is relief from pain and all excretion from the wound stops.

The surface is covered by a soft, healthy integument.

No cicatricial contraction follows. The motion of the knee in this case is perfectly normal.

The grafts are not thick enough to include hair bulbs. The hairs sprout again on the surface from which the grafts have been taken. On the grafted surface no hair will grow. Hence grafts might be taken from a hairy thigh and used upon the hands or face without fear of transplanting hairs.—*Post-Graduate.*

QUINQUAD has confirmed Unna's statement as to the presence of a special microbe in soft chancre. It is a bacillus with rounded ends, and is generally arranged in chains. It is present in prodigious numbers in the lymphatics and intercellular spaces.—*Med. Review.*

GUNSHOT INJURIES TO THE EYE—THE POSSIBILITY OF THEIR MORE CONSERVATIVE TREATMENT.

By George Ferdinands, M D., C.M., Abed.

The shooting season invariably confronts us with the *pros* and *cons* of enucleation by its presentation of cases where doubt is entertained whether a foreign body exists in the eye or whether the injury sustained by that organ is sufficient to demand its removal. Professor Theodore Leber, in his recent address before the Ophthalmological Society, very lucidly demonstrated how different chemical substances seem to possess different pus-producing qualities depending upon the amount of irritability each was capable of producing. We are told that "purulent inflammatiou set up by the action of chemical substances has not the same power of extension as that due to the action of microbes." This is an important statement, and its importance is enhanced, since clinical observation strongly supports Professor Leber in his further remark that "the inflammation caused by chemical agents remains more or less limited to the affected area." These facts, viewed in conjunction with the theory of germ transmission along the lymph channels of the optic nerves, undoubtedly demand a reconsideration of the bases generally accepted as justifying enucleation. Especially is this so in those cases where only an aseptic inflammation may with reasonable grounds be anticipated. Such reconsideration may lead to modified measures in a large proportion of gunshot injuries to the eye. A shot is a comparatively aseptic body, and usually produces little disturbance when lodged in the eyeball. In these cases the period of observation might with safety be prolonged. In fact, the hasty removal of eyes thus injured is to be deprecated. An attempt should be first made to extract the foreign body from the exudation around, from which, as suggested by Professor Leber, cultivations may be made, to discover the septic or aseptic nature of the injury. Another advantage from delay may be gained in cases where doubt exists as to the presence of a shot in the eye. The following instances which have come under my own observation may exemplify this.

Case 1.—R. B , in August last, had his left eye struck by a spent shot. The case was seen by me a week after the accident. The upper eyelid was slightly swollen and ecchymosed, and right in the

centre, nearer the nasal end of the lid, was a well-marked wound, almost healed. It was difficult to judge whether the wound had extended to the whole depth of the lid. Beyond these there were no perceptible signs of external injury. V. = barely 6-60, and on examination the fundus showed a large subretinal hæmorrhagic patch below the macula lutea, i. e., just on a line with the wound on the eyelid. The appearance the hæmorrhage presented was certainly suspicious, for it consisted of a dark central spot, slightly elevated, and surrounded by an irregular zone of a lighter shade. The vitreous near the hæmorrhage was slightly hazy. No other evidence of internal injury could be noticed in spite of careful examination, especially of that part of the fundus lying adjacent to the injured eyelid. The hæmorrhage retained its character and size for over three weeks, and then suddenly became absorbed in a few days, leaving only pigmentary traces, and when the case was last seen V. = 6-6.

Case 2.—A. M. was also accidentally shot just below the left eye, one centimetre from the lower lid, where there was a well-marked punctured wound, almost hidden by the swelling externally; the appearance round the eye was that of a typical "black eye." On careful palpation, rendered difficult by the swelling, no foreign body could be felt beneath the skin. The eyelids were with difficulty separated, and the external examination of the eyeball revealed only slight subconjunctival hæmorrhage towards the outer side. The examination of the fundus proved difficult, especially as the pupil was small; but a distinct subretinal hæmorrhage could be made out a little way below the disc. Ice and atropine were ordered. After three days the swelling subsided considerably, and a thorough examination of the fundus revealed only the single hæmorrhage seen before; it presented, however, the same peculiar appearance of a dark, jagged central spot and a lighter zone around it. On palpation over the wound a week after the accident the presence of a pellet embedded deep beneath the skin in the subcutaneous tissue could with a little trouble be felt. This discovery removed all doubt as to there being any foreign body in the eye itself. The hæmorrhage rapidly diminished in size and density, and a fortnight after the accident vision had improved from the perception of only fingers at 6 feet to 6-12.

Case 3.—I am unfortunately unable to give precise notes of this

case. A few years ago I was asked to assist at an enucleation. As far as I can remember, the history of the case was as follows: About a month before the date of operation the patient, while out shooting, was accidentally shot in the face. He distinctly felt something strike the eye. On examination there was either no apparent wound of the eyeball or only a slight abrasion. However, a well-marked hæmorrhage near the disc was easily recognized, looking very much as if a foreign body was lodged in its centre. The case was carefully examined from time to time by two medical men, but the persistence of the hæmorrhage without any apparent diminution of its size or density only served to confirm the suspicions entertained that the foreign body was present; and as the patient and his relatives were anxious about the matter, it was decided to remove the eye. This was done, and on examining the eyeball no foreign body was found, neither was there much evidence of any hæmorrhage left.

The first two cases were evidently instances of mere concussion of the eyeball, the hæmorrhage being caused by *contrecoup*. In fact, injury to the fundus by this peculiar phenomenon is by no means uncommon, and is especially noticeable in blows or injuries received over the eyeball. The third case must have been identical with the two former. It may have been a case in which the shot had traversed the eyeball and entered the orbit, but there seems not to have been sufficient evidence to suggest this. The case serves to show how necessary it is that a final examination of the eye should be made immediately before it is excised. Had too precipitous measures been adopted in the first two cases useful eyes would have been unnecessarily sacrificed.

The whole subject is replete with difficulties. Each case has to be treated on its own merits, and consequently depends on the judgment of the surgeon who has had drilled into him all the dangers of sympathetic ophthalmitis, and who naturally resorts as early as possible to extreme radical treatment. It is well, therefore, to remind him that there are certain cases which do not require these radical measures, and that they can only be recognized by an extension of the period of observation usually considered necessary in such cases.—*London Lancet.*

THE DOCTOR'S TEMPTATIONS.

[Editorial in the *Pacific Medical Journal.*]

The pitfalls which the devil places in the path of the young medical practitioner are many, and it behooves him to keep ever humming that good old Methodist hymn, "Yield not to temptation."

Dazzled in early youth by the stylish equipage, the beautiful residence, the elegant offices, the wealth, the honors and the high-sounding titles of Dr. Sapomollis, the able and energetic Professor of How-to-get-practice in the leading medical school, he may have chosen the profession of medicine as a bee-line to worldly success; but he soon has impressed on him the unselfishness of its votaries, and by daily association with his teachers the new-kindled all-for-the-good-of-humanity-self-sacrificing ambition's faint and flickering spark is fanned into an all-consuming flame, and, after graduating, it may be at the head of his class, he hangs out his shingle and sits down in his office with vain-glorious notions of the physician's noble calling, waiting patiently for the opportunity to exercise his humane benevolence. But day succeeds day, and week follows upon week, nay, months may roll by, and yet the poor suffering creature whose pain he so longs to alleviate, cometh not. One of his neighbor's children is taken down with measles, but his class-mate, Dr. Brazen, is called in, who, when a consulation is requested, suggests Dr. Sapomollis. At last the point is reached when he can no longer pay his washer-woman, the landlady threatens to evict him, the restaurant-keeper refuses him his twice-a-day chicory decoction and doughnuts, his watch is left at the "Uncle's" for safe keeping, and sleeping on a wooden table with Gray's Anatomy for pillow and a few old newspapers for covering, his philanthropic ardor is chilled, and if it were not that Drs. Sapomollis and Brazen might reap the golden harvest, he would plant typhoid *bacilli* in every well in town.

At this juncture a beautiful young woman "in trouble" comes with tears in her eyes and gold in her purse imploring him to help her. He wavers, but humming again to himself, "Yield not to temptation, for yielding is sin. Each victory will help you some other to win," he straightens himself up, and kindly, but firmly, says, "No," and then, not having tasted food for forty-eight hours, sits down, shuts his eyes, and tries to imagine savory pieces of roast

beef gliding down his œsophagus by the aid of a cup of fragrant tea. But, what joy! Salvation at hand! The Secretary of a lodge, with nearly two hundred members, notifies him that he has been elected their physician at a salary of $2.00 per year for each family. On the strength of his wonderful luck the restaurant-keeper even trusts him for a mutton-chop and a cup of chicory decoction. Soon after he finds himself being constantly called, night and day, for even the slightest ailments, but in the case of serious illness he is made to understand that if he were not paid by the year, they would prefer some one else. Thus he has to swallow many insults, and soon loses self-respect.

As he has a chance to write many prescriptions, the lodge-druggist comes and offers him a large percentage if he will only order cheap drugs in eight- and twelve-ounce mixtures, well diluted, tablespoonful doses; and as he knows that he is not only inadequately paid for his services, but insulted in the bargain, he does not scruple to conspire to defraud those who have treated him so shabbily.

As outside patients begin to come in, they are also requested to go to the druggist indicated on the prescription, because he is "absolutely safe and reliable." From accepting percentage on prescriptions there is but a step to other methods of cheating, as calling trivial ailments by terror-inspiring names or performing needless operations. A physician who can persuade his patients that every sore-throat is diphtheria, every slight bronchitis consumption, and every case of summer diarrhœa he is called on to treat, cholera, or a surgeon who can persuade every woman who has borne children that she has a lacerated cervix that must be sewed up, and that she is the only one who knows how to do it properly, will, it is easy to see, gain both fame and fees.

From systematized robbery to murder is hardly a step, and as the crime of homicide is well paid for, and detection difficult, the sympathetic or soft-hearted, but impecunious, practitioner needs both principle and fortitude to resist a woman's tears and gold.

The wiliest tempter, however, is the greedy, unprincipled, oily, smooth-tongued, flattering society paper fiend who comes to you with pictures and so-called biographical sketches of your former ideal, Dr. Sapomollis, Dr. Brazen and all your other professional friends, and wants to write you up, but in truth will drag you down. Beware of him!

WHO IS COMPETENT TO PRESCRIBE GLASSES.

By G. Melville Black, M.D., Denver, Col.

The above title would naturally indicate that glasses are being prescribed by people pursuing different callings. What I mean by prescribe is that they have their eyes examined, and are advised to wear glasses for the correction of some refractive error. We find this work being done by oculists, opticians, jewelers and a few druggists in some of the smaller towns throughout the State. It is not my intention to arraign any of the above for their actions, but to show that great injustice is being done to a certain number of our patients by unqualified parties who are trying to act in the capacity of oculist. An oculist should be a graduate in medicine and thoroughly familiar with the diagnosis and treatment of general diseases from actual experience. They should have sufficient training on the various diseases and refractive conditions of the eye to render them capable of conducting such cases understandingly. It is frequently said to me Professor ——— has been to one town and has put glasses on half the children in the place. If we stop a moment and consider we will see why. This "Professor" has no right to make a charge for examination, because he is not recognized by the laws of our State as a man qualified to collect such fees. A child is brought to this man, and, after making an examination to the best of his ability, he informs the parent that the child needs glasses. Of course he says so. What is he there for? If he does not give a pair of glasses he does not get anything out of the case. In consequence we find a great many wearing glasses who do not need them. We also find an equally large number wearing an improper correction of their refractive error. These so-called professors, the optician, and the vendor of glasses gene rally, are not allowed to use a mydriatic to suspend the action of the ciliary muscle. The laws of our State, fortunately, have confined the prescribing of such drugs to a profession who understand their physiological effects, their modes of application, the limitations to their use, and who know how to combat any untoward spmptoms from such use. It is an impossibility to properly estimate the refraction of even a very small percentage of children without first having suspended the action of the ciliary muscle by the use of some mydriatic. Therefore, if such be the fact, and I

think all of my colleagues here will bear me out, a vast majority of children wearing glasses which have been prescribed without the eyes having been tested under a mydriatic, are wearing an improper correction, and in all probability had much better be without glasses.

We find the hypermetropic eyes wearing minus glasses, or those that are suited to myopia. We find hyperopic astigmatic eyes wearing minus cylinders; myopic and astigmatic myopic eyes wearing from two to ten times the amount of their refraction. Such incompetent work is a great drawback and a detriment to ophthalmology. The laity generally does not make a distinction between the so-called professor, the optician and the oculist. The incompetency of one is laid at the door of the other. I am not sure that the layman is alone at fault in this matter. The medical profession is at fault. A large number are too careless as to whom their patients consult for such work. The family physician is naturally the first one to be made acquainted with the many ills of his patient, and often when told of the trouble Jessie and Tommie are having with their eyes, he informs the parents that they had better have the eyes examined, that they probably need glasses. Instead of directing the parent to take the child to some competent oculist, they are allowed to go to some optician or traveling shark. The doctor notices a few weeks after that Jessie and Tommie both are wearing a pair of beautifully made gold-rimmed glasses, probably elaborately engraved, as were the frames from one shark who sunk his teeth deeply into the unsuspecting public by virtue of the carelessness of some of the profession of Denver. Soon the mother comes again and says: "Doctor, Tommie and Jessie are no better." The disciple of Æsculapius looks grave and gives his "never-failing" tonic. The tonic gone, still Jessie and Tommie are no better. A large number of the patients we get consult us through the advice of some friend or the family physician, after the optician and the "tonic" have failed.

Another reason why the prescriber of glasses should be a graduate in medicine is, various ocular diseases and systemic disorders, both organic and functional, are first manifested by asthenopia, photophobia and amblyopia, and an early diagnosis of the eye lesion might save the sight, and, in many instances, the life of the patient. The trouble is, we do not get these cases until they have

been through the hands of the optician and traveling sharks of the country, and have a different pair of glasses from each one as well as a half dozen or more pairs selected themselves from some jeweler or druggist, and the main part of their history consists in relating to you these facts. An examination of the case reveals glaucoma simplex, albuminuric retinitis, optic neuritis or optic atrophy, toxic amblyopia, specific choroiditis, etc. Had we seen the case when the first optician saw it, a great deal might have been done. It will be noticed that I have confined myself to the difficulty of properly estimating refractive errors in children. I have done so because therein lies the greatest grievance against the optician. They should never attempt to fit a child with glasses, and the rule should hold good up to thirty years of age, for up to that time the accommodation is very active and they do not relax it readily, and in consequence make little of their refractive error manifest.

The optician's work is supposed to be that of adjusting frames to the face, which is a very important thing, and grinding the lenses as prescribed by the oculist. He stands to the oculist the same as the druggist to the general practitioner. You say the druggist has more or less prescribing; he puts up proprietary medicines with his name on them, which "claim to cure all ills flesh is heir to," and hands them out to every one coming in complaining of these ailments. I admit this is the case to a certain extent, but it does not make it right. The whole matter is wrong. Several very competent men in the State have told me they prefer to dispense their own medicine in preference to sending their own prescription to a druggist who does this.

The same way with many of the oculists here, they prefer sending east after their glasses rather than patronize the local opticians. Prescribing druggists and opticians who fit children and young adults, are doing our patients and ourselves an injustice, and in the long run their bank account will convince them of their error. I do not mean to say that all opticians prescribe glasses. In the east reputable opticians confine themselves to fillling oculists' prescriptions and other work pertaining to their trade. But I believe the opticians in the west fit almost everything that comes along, unless it is an unusually tough one. Let the family physician look to whom his patients consult about their eyes, and by so doing the laity will soon learn to differentiate between the competent and

incompetent men. The optician will soon find himself dependent upon the oculist for his work, and will so regulate his actions that it will be a joy and a pleasure to send our prescriptions to him, to get the annoyance of fitting the frames off of our hands. Then it remains for the general practitioner to start this much needed reform out of justice to the oculist, and to insure more competent work to their patients with eye troubles.—*Medical Mirror.*

TREATMENT OF APPENDICITIS.

Dr. Senn arrives at the following conclusions:

1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized.

2. Excision of the appendix in cases of simple, uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operations.

3. Excisions of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure.

4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix.

5. All operations should be done through a straight incision; parallel to and directly over the cæcum.

6. The stump after excision of the appendix should be carefully disinfected, iodoformized and covered with peritoneum by suturing the serous surface of the cæcum on each side over it with a number of Lembert stitches.

7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound.

8. Drainage in such cases is unnecessary, and should be dispensed with.—*Medical Progress.*

A New Cause of Measles.—An English health officer recently received the following note: "Dear sir, I beg to tell you that my child, aged eight months, is suffering from measles as required by Act of Parliament."

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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DR. THOMAS FANNING WOOD.

In our last issue we announced to our readers the death of our colleague, Dr. Thomas F. Wood. He died quite suddenly a short while after noon of the 22d day of August, 1892.

In the spring of 1885 he accompanied the Penitentiary authorities on a tour through the camps of the convicts then at work on the Western N. C. R. R. in the mountains. It became necessary for him to carry his heavily-packed travelling bag up a steep incline—on the mountain-side. At the end of the climb he experienced a stabbing pain in the right side, but a few moments rest dissipated it, and he thought no more about it. During the early part of the

following spring the pain returned, and a diagnosis of aneurysm of the aorta in its ascending portion was soon easily made out. At the request of his medical friends in Wilmington he went to New York and had the best advice obtainable there. The diagnosis was confirmed and treatment advised directly in the line already adopted, to stay in bed for a year or more absolutely, regulating his diet to simple farinaceous food and milk, and for medicine to take iodide of potassium. This advice he strictly followed, and he was in his bed for eighteen months and adhered to the prescribed diet and medicines rigidly. His restoration to his work was a source of thankfulness to his hosts of friends, and hopes were entertained that his life would be spared until old age should terminate it. Whenever he attempted to do more than an easily accomplished amount of labor, he was disabled and was forced to bed to recuperate again. About two years ago he began to show signs of decadence in his strength and was easily fatigued by any unusual strain upon his physical powers. This increased, and as his end came nearer, he grew more and more decrepid.

In the midst of all these obstacles, with a certain knowledge that he was the victim of a fatal injury, he kept up his spirits and maintained an office work that was surprising in amount. It embraced not only his professional work as a private practitioner, but also the onerous duties of the Secretary of the State Board of Health. His death came suddenly, being preceded by a day and night of painful dyspnœa and a pulmonary congestion due to pressure.

He was born in the city of Wilmington, North Carolina, on the 23d of February, 1841, and received only such an education as the high schools of the town in those days afforded. As soon as he left school he became a clerk in a drug store and was taught by a competent master all that was then known of the character and use of drugs. It is probable that here he first was impressed with the desire to study medicine. He was the private pupil of the leading physicians of this town at different times, and the writer knows with what affectionate and tender sorrow he watched one of these, dying as he was of a malignant diphtheria. It was as the grief of a son at the bedside of his departing father, and the words of sympathy and comfort that he had for the grief-stricken family are treasured as mementoes of his friendship and love. It was during

this pupilage in a preceptor's office that the civil war began. He threw aside his books and volunteered as a private in one of the companies raised in this city—afterwards Company F, 3d North Carolina Regiment. After the transfer of his company to Virginia, he was detailed as hospital steward under Dr. Otis F. Manson, who had charge of the hospital for North Carolina troops. This change gave him an opportunity to attend the lectures of the Medical College of Virginia in Richmond. After one course of lectures, he was examined and assigned as Assistant Surgeon of the 3d North Carolina Regiment, with which command he remained during the rest of the war. He clung with great pride to his recollections of the gallant deeds of the Confederate soldiers, and his recital of the stirring events in which he participated was always enlivened by his love for the men with whom he served, and whose bravery and suffering for a cause they deemed just, was a frequent theme of his conversation. He came home after the cessation of hostilities and began the practice of his profession. The invading armies had left behind them in his native town an epidemic of small-pox, which grew to such an extent that it became necessary for the community's safety that a hospital be established for the diseased and indigent negroes who were here in flocks, largely without means of support and unable to care for themselves when overtaken by sickness. Dr. Wood undertook the work, and organized and carried on this hospital successfully. This work aroused in him a desire to study thoroughly the subject of vaccination, and the interest then awakened never waned. His library contains many rare monographs and books on the subject, besides all the standard and well-known treatises, and his knowledge of all the literature of this important question was as extensive and varied as any man's in this country, and it may not be too much to say it equalled that of any-one here or abroad.

In 1868 he received the honorary degree of Doctor of Medicine from the Medical Department of the University of Maryland. He was the Secretary of the Medical Society of North Carolina, which office he held until 1872. In 1878 he was elected a member of the Board of Medical Examiners of the State, and was always one of its most earnest and useful members. In the same year, in connection with the late Dr. M. J. DeRosset, he began the publication of the JOURNAL, of which he has been the real promoter and editor until

his sickness in 1886 made it necessary to have an associate. His intercourse with the leading medical men of the country and his extensive reading convinced him of the usefulness of organized sanitary work and of the necessity of State Boards of Health. In 1885 he succeeded in securing a statute from the Legislature creating such a Board for North Carolina, and it was fashioned after his wishes, modified, it is true, by the difficulties that always attend reform movements everywhere. Since the inauguration of this work, he sought to popularize it, and the monthly bulletin which he issued found appreciative readers, and became an accumulating store of statistics. This work as Secretary of the State Board of Health, and his manifest ability, caused him to be among the founders of the American Public Health Association, which included in its list of members not only professional men, but men who were interested in sanitary improvements, and willing to lend their countenance and help to the work. He was Vice-President of this Association in 1891, and would no doubt have been its President had his health allowed him to continue his active work in its ranks.

There was yet another field in which Dr. Wood was an eager student and worker, and in which his abilities shone with brilliancy. He began the study of botany quite early in life. Finding in it both pleasure and intellectual benefit, he pursued it with such zeal that he became an authority on all questions concerning plants in this State, and particularly those of this region. His correspondence will reveal his knowledge and the intimate acquaintance it established with the workers in this science. His collection of books on this subject, and his herbarium are ample testimony to his thoroughness in the prosecution of his studies. This knowledge led him to a prominent place in the Committee for the Revision of the Pharmacopeia, and Mr. Charles Rice, the Chairman of the Committee, writes that "his death is a severe loss to the Committee of Revision, particularly now, when the Materia Medica portion and botanical descriptions are being finally revised."

In the midst of a busy life—as a general practitioner and surgeon—and after his health forced him into more quietude, doing a large office practice, he found time to take part in all the work that was begun and carried on in his town that had for its object the elevation of moral and intellectual character. He was for years a

Director and supporter of the Library Association of this town, and was its President when he died. Out of his means he gave liberally, often lavishly, for its support, and he was an anxious and earnest friend of so worthy a cause. He was always forward in all matters of local interest, lending the weight of his character and influence to the furtherance of worthy designs looking to the promotion of health and the general welfare.

His tastes were all refined and cultivated, and in general literature of the highest order he found rest and recreation from the toils and weariness of his active life. Here, as elsewhere, his retentive mind quickly siezed the salient points and preserved for ready reference the best parts of the books that he deemed worthy of study. Few men of our acquaintance had a larger fund of knowledge and fewer still the ability he possessed of aptly and usefully applying it.

His nature was enthusiastic and at the same time gentle and kind. He was easy of approach, liberal and open-hearted, bearing no malice, despising wrong-doing and littleness, and while condemning the fault, he willingly and charitably forgave the offenders, with a full hope of amending their evil ways.

His suffering and patience were the outgrowths of a high Christian character refined in the crucible of pain and silent meditation. His Church relations were of the most liberal sort. He believed in the purity of religion, not in the worthiness of denominational differences. He was a consistent member of the Episcopal Church, and had no spark of intolerance or bigotry in him. He lent his aid and time to the dissemination of religious teaching whenever it came in his way to do so, and many a soul has felt the influence of his kindly advice and earnest Christian life and example. The death of such a man is a public calamity, and his loss will long be felt. To those of us who enjoyed his more intimate friendship, words but feebly express the grief that is ours, and we cherish all the memories of his days here as gifts that need to be preciously kept. His children have a rich legacy left them in the example his great character has made for them, and all the communities where he was known are the better for having been partakers of his life and his labors.

Surely his works do follow him, and there is yet alive among us the beautiful character of the man we loved and now mourn.

OBITUARY.

At a meeting of the Wilmington Medical Society, held in the Director's Room of the Young Men's Christian Association, the following memorial of the late Dr. Thomas F. Wood was presented by the Committee appointed to draft it :

We meet to-night to tell each other and the listening public our estimate of the loss we have just sustained. Death has reached into our midst again, and taken away our chosen friend. In the calm repose of a Christian, Dr. Thomas Fanning Wood has laid down his work among us, and we sit as mourners for our loss. It is a fitting time to recall the virtues that have made his life so memorable. In his desire to serve his fellow-man he woke to an ambition that was guided by an honest heart and an active intelligent mind. Possessed in early life of none of the accessories that ordinarily are esteemed quite necessary to prompt success in professional life—a finished scholastic education, a store of wealth sufficient to set aside the groveling labor for the needs of life and hosts of influential friends, who would lend a helping hand to a deserving beginner, he saw in the life of a physician the road to preferment that is open and inviting to all of those who follow it conscientiously and willingly. He took an earnest hold upon the affairs of life as they presented themselves to him with a settled determination to succeed. There was no selfishness in his ambition. In its scope it included not only the praiseworthy projects he so eagerly sought to promote, but also a willingness to help all those who were inspired with the same high purpose as himself, to live and work for the great good of humanity. He had no petty ends to subserve, and therefore was never guilty of the baser means adopted by the smaller men to gain the objects of their labor. Enthused with the belief that a high moral character, the outgrowth of a genuine Christian faith and honest Christian work, was the first requisite to success in the life of a true physician, he entered on his labors as a leader true to his convictions, with all the zeal of a naturally hopeful disposition. There was in him an inborn and increasing dislike for everything that was unbecoming a true manhood. He lived largely in a world of letters, as well as actively participating in the management of such affairs as his professional life brought him in contact with, and he grew in the fullness of time to a magnanimity

of disposition that was always liberal and made him easy of approach to all those who sought his aid, and assured them of his best efforts in their behalf.

He was a constant student of human nature and recognized the real value of men with wonderful accuracy. This highly cultivated trait of character made him easily accessible to the younger men in the profession, and his aid was always at their command, and when it was sought it was dispensed with such a kind and gentle way that its value was largely enhanced.

No man of our acquaintance had so thoroughly improved the opportunities that presented themselves as he did. Books of the highest value were his friends, and the riches of good literature were eagerly stored up in his retentive mind. In medicine he was always among the advancing students, seizing and applying the new truths as they were developed, sifting out the good from the worthless with striking discrimination, using the newer facts as they were brought out, and discarding the theories of busy but vain thinkers.

He was strongly imbued with a scientific instinct and had a questioning mind, and these led him early into the study of botany. To him the woods and fields were full of wholesome and purifying study and delight. They spoke to him of the wonders of nature, and taught him over and over the greatness of his Creator. The flowers of the field were often, therefore, his companions, and he knew them by name as a friend knows his friend of many days. In time this knowledge brought him the confidence of men who were seeking to cull the useless and unnecessary medicines from the lists, and to preserve only those of value and known efficacy. He knew the genera and species to which each of these drugs belonged, and their kinship to those whose reputation was established. It was in this special department, among so many others, that his counsel will be greatly missed. But in addition to this, he had time, or found it, to be of great use (how much we all know) as a journalist of the highest order, a sanitarian of the strictest sect, learned in the laws of health and their application; a physician of high repute, a man of letters, versed in history and literature. Above all these, he was an ardent disciple of the teachings of the holy religion that guided his life, and he gave his best efforts for this cause, and by example and precept he sought to do his part for the glory of his Master.

We have laid him to rest after his years of patient suffering. We have seen him through these years accept the burden of sorrow and pain that it was his lot to bear. We have known of his trust and confidence in the mercies of his God. We have watched with grieved hearts his decline, and been taught lessons of patience by his uncomplaining acceptance of the heavy hand that led him down to his grave, and we stand now as over his empty place among us—softening our grief with these memories of his useful life and triumphant death, bearing glad and willing testimony that the world is better for having such a life as his vouchsafed it.

"Blessed is the man who has the God of Jacob for his help, and whose hope is in the Lord his God."

Resolved, That this memorial be spread upon the minutes of this Society, and that a copy be sent to his family, with our sympathy.

Resolved, That the proceedings of this meeting be published in the NORTH CAROLINA MEDICAL JOURNAL.

MEETING OF THE NORTH CAROLINA STATE BOARD OF HEALTH.

TRIBUTE OF RESPECT.

At a meeting of the North Carolina State Board of Health, held in the city of Wilmington on September 7th, 1892, the following preamble and resolutions were presented and unanimously adopted:

WHEREAS, The Almighty Ruler of the universe has seen fit in His infinite wisdom to remove from our councils our worthy Secretary and Treasurer, Dr. Thomas F. Wood; therefore be it

Resolved, That in his death our Board has sustained a great and irreparable loss, that affects not only its members, but also the well-being of our profession and of the people throughout the State as well.

Resolved, That we desire in this connection to place upon record our estimate of his long, faithful and efficient services in behalf of public sanitation in North Carolina, for we recognize that the North Carolina Board of Health had its inception through his labors and influence, and that it has been sustained and brought to its present state of efficiency directly by his personal endeavors and individual pecuniary sacrifices.

Resolved, That we desire, furthermore, to express our appreciation and admiration of his eminent services to the medical profes-

sion, for we are assured that, by his superior learning and marked ability, as much as by his pure and unblemished Christian life and character, he has dignified and elevated the profession in our State, and has earned for himself a name and influence that, reaching out to other States and countries, has reflected credit and honor not only upon his own profession, but upon his native State that he loved so well.

Resolved, That we desire to express to the family of the deceased our lasting and unfeigned sorrow, and assure them of our earnest and heartfelt sympathy in this, their sad bereavement.

Resolved, That the Secretary of this Board furnish copies of the above, for publication, to the NORTH CAROLINA MEDICAL JOURNAL and to the newspapers of Wilmington, with the request that they be copied by the press of the State, and that a copy be also sent to the family of our deceased member.

CUMBERLAND COUNTY MEDICAL SOCIETY.

RESOLUTIONS OF RESPECT.

At the last regular meeting of the Cumberland County Medical Association the following memorial tribute was presented and unanimously adopted:

In endeavoring to express our appreciation of the loss which has come to us in the death of Dr. Thomas F. Wood, our friend and brother, we way well pause and ask, Are we capable of doing justice to him or ourselves?

His life has been no ordinary life; his end most perfect; and as we look back over the years since we have known him well, we see now the perfection of his character, the deep endeavor to do his full duty to God and man: to God, in that he walked with Him; to man, in that he labored day and night to fit himself for his daily work, so that he might go about doing good, though often his own pain and suffering were greater than that of those he sought to relieve.

We would as a Society commemorate his great zeal for his profession, and place on record our own deep sense of his worth and our unfeigned sorrow in that he is no more with us. And still, while we shall miss him and sorrow long, yet it is mingled with joy that God gave us the privilege of living close to him, and that

we can always feel that our profession has been elevated by his influence and ourselves made better men and physicians by his life and example.

While, then, we sorrow with those who loved him, we feel that in a life so complete there is left us a pleasant memory, which may lead us to emulate his life, so that we may all rejoice together in the Great Hereafter.

Joining, then, with the profession throughout the State in doing honor to his memory, we place this, our tribute, upon our records, as an expression of our love for him and of our loss at his death.

T. D. HAIGH, M.D.,
W. C. McDUFFIE, M.D., } Com'tee.
J. H. MARSH, M.D.

A copy of the above was directed to be sent to the family of the deceased, the NORTH CAROLINA MEDICAL JOURNAL, the Fayetteville *Observer* and the *Wilmington Messenger*.

JAMES A. HODGES, M.D.,
President.

J. F. HIGHSMITH, M.D.,
Secretary.

Fayetteville, N. C., September 1, 1892.

SULPHONAL IN REFLEX SPASMS.—Dr. Edward Andrews (*Jour. Am. Med. Asso.*) has found sulphonal in 15-gr. doses most useful in the arrest of cramps in fractured limbs and in reflex spasms from other causes. His attention was first drawn to this action of the remedy in the case of a patient who suffered very much from muscular cramps after a fracture of the femur. Morphine relieved the patient until drowsiness occurred, when the cramps returned. On changing to sulphonal in 15-gr. doses the cramps were relieved in both waking and sleeping condition. Repetition of the treatment in other cases gave the same result. The drug being slow in its action, should be given in one large dose two or three hours before bedtime, where the cramps are only nocturnal, or in smaller doses through the day. He considers the anti-spasmodic power of sulphonal of more value than its hypnotic action.

REVIEWS AND BOOK NOTICES.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. A Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by CHARLES E. SAJOUS, M.D.. In Five Royal Octavo volumes. Illustrated with Chromo-Lithographs, Engravings and Maps. The F. A. Davis Company, Publishers, Philadelphia, New York, Chicago and London, 1892.

When the prospectus of this stupendous undertaking was sent out to the world many a doubt arose in the minds of us men of small things, and one was reminded of what the wise ones said when

"Bold Cyrus Field, he said, says he,
I have a mighty notion,
That I can lay a telegraph
Across th' Atlantic ocean.

"Then all the people laughed and said,
They'd like to see him do it,
He might get 'half-seas-o'er,' but
He never would go through it."

But the bold editor was only satisfied with the whole world as his field, and that the work has reached its fifth series is proof sufficient that this is a day of great achievements.

The present series shows no deterioration in the excellence of the work, and the author promises even better things for the future. Dr. O'Dwyer is the editor of a section devoted to intubation. With this work at hand the physician is enabled to keep abreast of the times in the advancement of medical science in all its branches. Quotations are made from 1,027 journals and 166 monographs; so that should one desire to study more fully any topic, he would have no difficulty in securing the best literature on the subject. Most of the sections are ably handled by the editors in charge, among whom are many of the most distinguished of America's physicians.

BOOK ON THE PHYSICIAN HIMSELF, and Things that Concern His Reputation and Success. By D. W. CATHELL, M.D. New Tenth Edition (Author's Last Revision). Thoroughly revised, enlarged

and rewritten. In one handsome Royal Octavo volume. 348 pages. Bound in Extra Cloth. Price, post-paid, $2.00 net. Philadelphia: The F. A. Davis Co, Publishers, 1231 Filbert Street.

Full of sound advice, well and pleasantly told, is it any wonder that this book has reached its tenth edition? What so quickly attracts the attention of the young physician as the recommendations and advice of a successful and well-established physician about the things that concern his reputation and success. It would be well for all new graduates who desire to do the right thing, but who have never read the Code of Ethics, to procure this book and read it carefully; and those who have made themselves familiar with the Code would find here many valuable hints that would aid them in carrying out its provisions.

By the way, the writer has often thought it would be well if the colleges, on graduating Doctors of Medicine, would present each with a copy of the Code at the time he receives his diploma.

CAMPHOID, A NEW COLLODION.—The *American Druggist* refers to the above named substance as a possible substitute for collodion. It is a property of iodoform that it is soluble, one part in ten, in Rubini's solution of camphor—that is, equal parts by weight of camphor and absolute alcohol—and may be thus used as a topical application. This requires fixing on the part, to get the best results; this object is attained by the addition of pyroxylin, one part in forty of the iodoform and camphor solution. A complete solution can be made in these proportions. When applied to the skin with a brush, the fluid does not spread, but dries up in a few minutes and leaves an elastic opaque film that will not readily wash off. The excess of camphor volatilizes and masks the odor of the iodoform. The gun-cotton may be used with the simple camphor solution, in the strength above mentioned, and be made to serve as an eligible base for dermatic medicaments, such as resorcin, chrysarobin, ichthyol, iodine, carbolic acid or salicylic acid. Martindale, in the *Pharmaceutical Journal* for April 9, suggests that, if the camphor and pyroxylin solution shall prove acceptable to the profession, it may be named "camphoid." In that event, the formula would read as follows: Camphor, 20 parts; absolute alcohol, 20 parts; pyroxylin, 1 part.—*Jour. Am. Med. Sciences.*

CURRENT LITERATURE.

THE ORIGIN AND DIFFUSION OF CHOLERA.

Surgeon-General Cornish, C.I.E., has contributed a paper to the current number of the *New Magazine* on the Origin and Diffusion of Cholera. Apart from the obvious interest which the subject possesses at the present time, when European countries are threatened with the prospect of a new cholera invasion on a large scale, the paper merits attention from the fact that its author has acquired a practical knowledge and experience of the disease in the East from the official position he held in India. Allusion is made, first of all, to the great value of the late Mr. J. Netten Radcliffe's labours during his lifetime in having conscientiously chronicled and recorded the facts about the progress and geographical distribution of epidemic cholera from year to year, whenever that disease overflowed the limits of its natural home in the great river deltas of Lower Bengal and India. Reliable information from health officials regarding the progress of epidemic cholera is essential to a correct judgment regarding the liability of any particular area to invasion. So far as can be gathered, Surgeon-General Cornish says, the epidemic which now threatens the whole of Europe appeared in March or April of the present year in the Northwestern Provinces of India, attacked with great violence the pilgrims at the great Hudwar fair near the source of the Ganges, spread through Cashmere and Afghanistan, reached Persia in May or June, crossed the Caspian Sea and spread amongst the population of Asiatic Russia, from whence it is making rapid progress in European Russia. The epidemic since April has travelled in a northwesterly direction and has covered or overflowed many thousands of square miles of territory. The history of the progress of the great epidemic of cholera of 1829–31 should be closely studied by those who wish to understand the significance of the present epidemic. Cholera history is apt to repeat itself, and the circumstances which happened in 1831 are therefore very likely to happen again in 1892 and succeeding years. The route taken by the present epidemic is almost identical with that which invaded Europe in 1831. It is quite a mistake to sup-

pose that since India is the natural home of cholera the disease is everywhere present there and ready to take an epidemic form. An epidemic of cholera follows the same laws in India as in any other country. It is endemic only in certain and limited parts, from which an epidemic advances occasionally, with intervening intervals of uncertain duration. Its progress is influenced by season and atmospheric conditions, and, after lasting a period of about three years, the epidemic dies out. Surgeon-General Cornish questions whether the cholera in the suburbs of Paris, with its peculiar and circumscribed topography and weak infective power, can be attributable to the same cause as that which has invaded and is now advancing in Russia. He alludes to that country's half-civilized acquisitions in Asian soil as a source of difficulty and danger in this direction, and considers that, as far as the safety and happiness of her people are concerned, the wealth now spent on the maintenance of a huge army and on ambitious schemes for extension of territory, would have been more efficiently laid out in the improvement of the sanitary and social condition of the populations under her rule. As regards land quarantine and sanitary cordons, which European nations are so ready to enforce against their neighbors, these have never been successful in keeping out cholera. In India, with ample militery aid at hand, they have been tried again and again unsuccessfully The only provisions on which any reliance can be placed are sanitation, a good water-supply, efficient drainage, surface soil cleanliness, wholesome food and habitations. The invading cholera, if it does not reach this country in the present autumn, is, in Surgeon-General Cornish's opinion, likely to do so in 1893. Happily the early accession of cold weather has apparently had the effect, to which he alludes, of repressing the progress of the disease for the present. The moral of this matter lies on the surface. What we have to do in the meantime is to seek out and repair the weak places in our sanitary harness.—*London Lancet.*

THE *American Therapist* fo August, 1892, has come to hand, being the second number of a new monthly magazine, published in New York City under the editorship of Dr. John Aulde.

THE SURGICAL CARE OF WORKMEN.

Dr. Robert W. Johnson, in a paper on this subject (*Med. News*, August 27, 1892), cites the conditions under which the laboring man lives and labors, and considers them as they influence him as a surgical patient. He notes his liability to injury above other classes, his exposure to vicissitudes of weather, and other debilitating effects of heat, cold and wet; his poor surroundings, miserable food, bad inheritance, and besides these he often brings with him the trail of the serpent left by the sirens of the bawdy house and bar-room. He does not forget the few advantages which tend to offset this array of unfavorable conditions. The laborer generally is of stronger constitution, is less nervous. He bears pain with Spartan fortitude, his imagination is not so vivid, and he anticipates less acutely; he is often stoical, rallies easier, is not effeminate, but essentially manly. His stomach is stronger, being accustomed to coarser food, and he retains his nourishment better than the pampered classes.

As the practical question he asks: "Who is to support the laborer during the time that he cannot earn his daily bread?" He mentions four plans, to all of which there are some objections.

1. Public charity—the support of beds in large hospitals. This has its disadvantages in that the patient receives no help while at home; it tends to pauperize him; he is made the object of experiment, therapeutically or surgically; also the unfair advantage taken by persons able to pay.

2. At the man's personal expense. Here comes the fact that the man's family generally consume all he makes from week to week, and cannot meet the extra expense, and especially with the regular income cut off; hence necessary drugs and nourishment are wanting.

3. Where the employer looks after the men injured in his service and pays the hospital expenses, probably allowing part pay during illness. This method has its advantages to the capitalist, in that an employee who receives such kindness is less inclined to litigation, but there is the disadvantage that it partakes of charity, the laborer paying nothing for his own maintenance.

4. Mutual insurance among employés as is in vogue in some of the great railroad systems, where for a regular small sum paid

weekly the man is entitled to the indemnity in case of illness or injury. This is only objectionable in that it does not associate the employer with it.

His suggestion is that there be a partnership between labor and capital in taking care of disabled (by sickness or injury) men. Let the men keep up the mutual insurance plan, but the employers pay half the expense. Then, in case of accident, the surgeon has a duty to perform, not only to the patient, but to the company that employ him. The author thinks "nowhere is a man 'a man for a' that'" more than when you are about to cut him, whether he be pauper or millionaire. His robes of office, or his overhauls have been stripped off, and he lies before you clothed with humanity, appealing to your sense of human kindness as well as your professional skill. He needs your kindness, your cheer, your sympathy. Treat him as an intelligent being. State facts to him and let him decide. . . . On your own account never operate without his permission, except in emergency or his inability to give it. . . . One cannot be too conservative about amputations. It is marvelous how much injury a hand or foot may receive and yet come out under aseptic treatment a useful member."

In concluding his paper he offers the following suggestions for the surgical and medico-legal treatment of cases of injury:

"Asepsis is so difficult to maintain or to secure in hands and feet and scalp begrimed with furnace smut and driven in by contusion and laceration, that we have in the blood-clot treatment of Schede a great advance in accident-surgery when organization can take place in the deeper parts before pus-organisms have gotten a foothold and resistance is made and the field occupied by Nature's methods in advance, suppuration being discounted as it were.

"To reduce the armamentarium of the operator, when called to see workmen at their homes and when there are not the same facilities for aseptic work as in the hospital, I have devised a kettle containing trays, which, filled with the respective instruments and dressings, may be boiled while the patient is preparing. I boil everything, using silk ligatures and sutures in proper lengths wound on glass. I have substituted for the rubber tissues (which balked me in this respect) the thin scales of transparent mica to protect the clot, and which stand any amount of boiling or acids or bichloride. They, as well as the other essentials, a wash-boiler, with

meat-dishes or plates to hold the trays, may be obtained in any house where there is a stove. The dressings after boiling should be impregnated with a mild bichloride solution, for, while the boiling renders them aseptic, it does not make them antiseptic. I feel competent in an emergency now to venture, with these simple appliances, i. e., a pocket-case, a few tablets of bichloride, into a laborer's house and find those articles used in his domestic life which will give me material assistance in antiseptic work, and render suppuration more and more inexcusable, even in back country districts or with druggists out of sight. I need not dwell on the great value of pressure in eliminating dead spaces by elastic cushions of gauze, supplemented by lint, which, when dry, forms a splint.

"In the interest of the company have the testimony of eye witnesses taken at the time of the accident, so that you can present that to a jury if necessary, and not be dependent on garbled, forgetful, or partial memories should the case come into court. Inform the man's family gently of his condition from time to time, see him every day and impress him with your sincerity and attention. Avoid the publication of accidents in the daily newspapers as far as you can, as there is a "shyster" in law as there is a "quack" in medicine, who is on the lookout for damage suits for a contingent fee, and though I have known the name in print to act as a temporary balm to the friends of the injured man, and perhaps to the sufferer himself, I think it best for the interest of all concerned that matters move on without the interference of the public. So, do not court the reporter in the hope of seeing yourself advertised. You may often be asked by the patient whether or not, if you were in his place, you would sue for damages. Decline to be anything but the surgeon in charge of the case; do not oppose him, or he will think you in league with the company. Simply tell him that you are his physician and not his lawyer, and he must decide. Should your patient obstinately refuse to follow your surgical advice, it is well, as protection to yourself and your employer, to obtain a *written* acknowledgment of your proposition and his declination, or, if he declines to give you that, get the corroborative testimony in writing of several fellow-patients in regard to your offer and his obstinate refusal. There is no comfort in his verbally declaring that he will take the responsibility of his act; see that you are protected in black and white.

"All these precautions and cares, however, will sometimes be of no avail, unless the company you represent second your endeavors, not with parsimonious, penny-wise policy, but in the same spirit and liberally. This they can do if they contribute to the care of the injured by meeting your suggestions cheerfully, going to the necessary expense in necessities, and, more than that, wisely allow the injured man some privileges and actual money, say half-pay, while sick, in addition to his hospital cost, or if the company and men contribute equally, doing it cheerfully and punctually. Then, in the after-treatment, they can do a great deal toward smoothing matters over—an easy position for awhile to an injured man, where he can earn his living without too much hard work, gradually getting him back as he improves into his old or a better position. Men appreciate the opportunity to earn a living, in my experience, far more than they do a money benefit. A little attention on the part of the heads of the firm, a casual inquiry of a man how he is doing, all these little thousand and one ways of showing that the employer does not look on his laborer as a machine, to be cast into the gutter when broken or even useless, bring about the *entente cordiale* so requisite in the harmonious working of large bodies of laboring men.

"Should, in spite of the methods mentioned, a man who has been injured insist on damages, except as far as your prognosis is asked, you have nothing to do. With the law you are not an expert; to your employer you can only say what is your unbiased opinion as to the extent of damage done. You have nothing to do with the placing of responsibility on either party, and your testimony should be as impartial as if you had been called as an expert in a hypothetical case. You have no right to take sides in your testimony; though, as an employé of the company, you can suggest questions to the attorney for the possible confutation of the plaintiff's medical testimony. In the last connection, i. e., lawsuits, I am glad to say, I have but little experience.

"During the last five years I have been connected as surgeon with some of the largest manufacturing and labor-employing concerns in this State. In one alone, the medical department has treated over five thousand cases of accident and illness, ranging from fracture of the vertebræ, with long-suffering life in the hospital, to contusions of the little finger. In that list may be found

death, loss of sight, disfigurement, loss of limbs, double fractures, in fact, everything nearly that can constitute an injury or ailment, and, yet on this system described, with careful and kindly work in the same line by my assistants (many cases of small injury I never see), together with the hearty coöperation and liberal seconding I always cheerfully get from the heads of the firm, we have treated, as I said, five thousand and more cases, and there is yet the first suit for damages to be tried against this firm. I do not claim it as my work, nor do I say that it is altogether that of others. We have done it conjointly, and I feel a certain amount of pride in pointing out the modicum I had in bringing it about."—*Med. News.*

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The Ideal in Medicine.

By Oscar McMullen, M.D., Elizabeth City, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

I am impressed with the belief that, had your Nominating Committee been guided more by considerations of your entertainment and instruction upon this occasion than by the deceptive glamour and halcyon days of college chumship, the mantle of this prophecy would have fallen upon more capable shoulders; still, regarding the Medical Society of North Carolina with an affection and fealty

meat-dishes or plates to hold the trays, may be obtained in any house where there is a stove. The dressings after boiling should be impregnated with a mild bichloride solution, for, while the boiling renders them aseptic, it does not make them antiseptic. I feel competent in an emergency now to venture, with these simple appliances, i. e., a pocket-case, a few tablets of bichloride, into a laborer's house and find those articles used in his domestic life which will give me material assistance in antiseptic work, and render suppuration more and more inexcusable, even in back country districts or with druggists out of sight. I need not dwell on the great value of pressure in eliminating dead spaces by elastic cushions of gauze, supplemented by lint, which, when dry, forms a splint.

"In the interest of the company have the testimony of eye witnesses taken at the time of the accident, so that you can present that to a jury if necessary, and not be dependent on garbled, forgetful, or partial memories should the case come into court. Inform the man's family gently of his condition from time to time, see him every day and impress him with your sincerity and attention. Avoid the publication of accidents in the daily newspapers as far as you can, as there is a "shyster" in law as there is a "quack" in medicine, who is on the lookout for damage suits for a contingent fee, and though I have known the name in print to act as a temporary balm to the friends of the injured man, and perhaps to the sufferer himself, I think it best for the interest of all concerned that matters move on without the interference of the public. So, do not court the reporter in the hope of seeing yourself advertised. You may often be asked by the patient whether or not, if you were in his place, you would sue for damages. Decline to be anything but the surgeon in charge of the case; do not oppose him, or he will think you in league with the company. Simply tell him that you are his physician and not his lawyer, and he must decide. Should your patient obstinately refuse to follow your surgical advice, it is well, as protection to yourself and your employer, to obtain a *written* acknowledgment of your proposition and his declination, or, if he declines to give you that, get the corroborative testimony in writing of several fellow-patients in regard to your offer and his obstinate refusal. There is no comfort in his verbally declaring that he will take the responsibility of his act; see that you are protected in black and white.

"All these precautions and cares, however, will sometimes be of no avail, unless the company you represent second your endeavors, not with parsimonious, penny-wise policy, but in the same spirit and liberally. This they can do if they contribute to the care of the injured by meeting your suggestions cheerfully, going to the necessary expense in necessities, and, more than that, wisely allow the injured man some privileges and actual money, say half-pay, while sick, in addition to his hospital cost, or if the company and men contribute equally, doing it cheerfully and punctually. Then, in the after-treatment, they can do a great deal toward smoothing matters over—an easy position for awhile to an injured man, where he can earn his living without too much hard work, gradually getting him back as he improves into his old or a better position. Men appreciate the opportunity to earn a living, in my experience, far more than they do a money benefit. A little attention on the part of the heads of the firm, a casual inquiry of a man how he is doing, all these little thousand and one ways of showing that the employer does not look on his laborer as a machine, to be cast into the gutter when broken or even useless, bring about the *entente cordiale* so requisite in the harmonious working of large bodies of laboring men.

"Should, in spite of the methods mentioned, a man who has been injured insist on damages, except as far as your prognosis is asked, you have nothing to do. With the law you are not an expert; to your employer you can only say what is your unbiased opinion as to the extent of damage done. You have nothing to do with the placing of responsibility on either party, and your testimony should be as impartial as if you had been called as an expert in a hypothetical case. You have no right to take sides in your testimony; though, as an employé of the company, you can suggest questions to the attorney for the possible confutation of the plaintiff's medical testimony. In the last connection, i. e., lawsuits, I am glad to say, I have but little experience.

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STRYCHNIA IN POISONING BY ILLUMINATING GAS.—Dr. James T. Johnson, in the *Maryland Medical Journal*, reports a case of a man exposed for five hours in a small, tight room to the effects of coal gas from an open burner. Artificial respiration was kept up five hours. At first trinitrin and whiskey were used hypodermatically at intervals, each administration being followed by immediate improvement in the cardiac action. Strychnia sulphate in 1-60 grain doses were finally given to stimulate respiratory effort. Improvement followed each dose, but not until the third dose had been given had the respiration so improved that the artificial respiration could be safely omitted. The author says: "Attentive observation of the immediate effects of the drugs used leads to the conclusion that strychnia was the drug to the use of which the successful issue of the case was largely due, in addition, of course, to supplementing voluntary by artificial respiration. Almost at once following each hypodermic of strychnia both the depth and frequency of inspirations were notably augmented. Death seemed imminent from deficient respiratory effort, cardiac action remaining relatively good. Trinitrin, alcohol and ammonia, though immediately and certainly stimulating the heart, did not seem similarly stimulant to the respirations, while strychnia satisfactorily fulfilled this indication."

VENOMOUS SNAKES OF NORTH AMERICA.—Dr Barringer, of the University of Virginia, has given, in the last volume of *Transactions* of the Southern Surgical and Gynecological Association, his views regarding the dangerous serpents of the United States. The rattlesnake, the copperhead and the water moccasin are sufficiently established in their reputations and have been often described; the first of these is sluggish, the second agile, and the third spiteful. The dangerous capabilities of the harlequin snake, the *elaps fulvius*, however, are less known. This beautiful little reptile, sometimes known as the coral snake or bead snake, is the only known repre-

sentative of the cobra family in North America. It is found from Virginia to Texas. Its average length is not more than eighteen inches; in color it is blue-black, with brick-red and yellow bars along the caudal extremity. It is gentle and may at times submit to handling without biting. It has fangs, however, and Dr. Barringer has known of a fatal case, death following within twenty hours after his bite. The author estimates that ten per cent. of rattlesnake bites cause death; only one per cent. by the copperhead, and no deaths are known to him as having resulted from the bite of the moccasin. No bacteria have been found in the venom of snakes freshly taken, but a host of septic bacteria may exist in the saliva of these animals, left in the mouth from its food. These latter germs flourish to a greater or less extent in the buccal mucus, and in the case of the copperhead this mucus is so abundant that the name "cotton mouth" is frequently applied to the snake. In about five per cent. of snake-bites a chronic septicœmia is a result of the introduction of these septic germs of the salivary fluid.—*Journal of the American Medical Sciences.*

A Modification of Teal's rectangular flap operation is suggested in the *Medical Record* of August 27, 1892, by Dr. Robert J. Reed, whereby the length of the flaps can be materially reduced. It is in case of injury especially where most of the sound tissue is on one side of the limb that this operation is best suited. In Teal's operation the ends of the flaps are stitched together, and this requires the length of the short flap to be one-fourth the circumference of the limb where the amputation is to be done, while that of the long flap is one-half the circumference. The modification suggested is in the manner of coaptating the flaps. Each flap being in breadth half the circumference of the limb, and containing only skin and subcutaneous tissue, the short one extends only to the level of the sawn bone, the long one being in length one-fourth the circumference of the limb. The sides of the long flap are turned up and stitched to the end of the short flap, at the center of which they meet, the length of the long flap being equal to one-half the breadth of the short. The end of the long flap is thus doubled on itself and stitched together. The suture line is then in the form of a T, the horizontal arm corresponding to the arm of the short flap and the perpendicular extending from the center of the short flap to the fold in the end of the long flap.

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The subject selected is :

THE IDEAL IN MEDICINE.

I have been induced to such a selection instead of a subject purely and technically medical, since the Annual Essay is generally read before a mixed audience, and from the further consideration that the professional part of my hearers have had, or will have, before this Society adjourns, medicine, surgery *et id omne genus, ad nauseam.*

In the elaboration of the title there arises two ideas for consideration :

1. The ideal doctor.
2. The ideal patient.

And however much I may feel my conscious power expanding within me for reading instruction to the laity, I must confess, when I look out over my audience and see the faces of many of my associates beautiful with the graceful lines of searching thought, and heads silvered with the workings of age and experience, I feel the temerity of my endeavor, and did I not recognize the truth of the devil's remark to Mother Eve—

"Yet shapes uncouth, that dully stroll about with awkwardness,
May know *some* truth and tell it,
So that a fairer and more learned one, by taking heed,
May gain advantages,"

even now I would desist from the undertaking.

There is no vocation beneath the sun more exalted in its character and more exacting in its demands than that of the physician's life, except, perhaps, it be the calling of that one who tells the story of the "strangely sweet teachings of Jesus." The very nature of the object upon which this vocation is exerted, the mental and material make up of man, the grandest and most complex of all created things, gives to it a dignity beyond all other pursuits of an earthly character. How important, then, does it become that each one who essays this noblest life-work should strive for the highest possible standard, and be thoroughly equipped for the difficult undertaking which he has assumed.

There is no business, however simple, which can be successfully prosecuted without proper training and suitable preparation; and he who attempts any, even of the minor, pursuits of life without this preparation, in the majority of instances, will ultimate in signal failure.

The successful farmer must learn his art through years of patient observation and experimentation. The merchant must abide his apprenticeship and the mechanic patiently learn his trade. Our brother, the disciple of the green satchel and crooked tongue, masters the theory and practice of law only after years of persistent application. If, then, the accomplishment of success along these lines of life's work, where all is material and tangible, where all can be weighed and measured, and where, if mistakes occur, they are temporary and correctable, depend upon a previous and proper preparation, how superlatively important it is that the physician enter upon his life career four-square and complete in every detail, for in his case mistakes are mistakes forever, and often fatal.

The study of medicine is mainly the study of man—of man in all his wonderful and intricate arrangement of ganglion and vessel and nerve, with all his hidden secrets of animal and vegetative life, with all his high endowments of intellect, sensibility and will. With all this vast, interesting, and, alas! often obscure, field to be explored, how appalling does the flippant way in which its great responsibilities are assumed appear to the reflective mind. The time has been when these grave responsibilities could be taken up by anyone without let or hindrance, and often it has been the case that some have dared to enter into these beautiful mysteries of life without chart or compass or guide to the hidden field they would explore.

Even when an attempt at preparation was made, oftentimes, it was incomplete and totally inadequate, the main idea being the possession of a Latin-written diploma, the meaning of which remained as inscrutable as the riddle of Sphinx. It is for reasons such as these that our profession has failed to merit and obtain from the laity that high place which the importance of our mission would naturally assign us; and when we have fully met the demands which the public has the right to make at our hands, and approached as near as may be that idea which presently will be delineated, I doubt not that they will be more ready to grant all we ask in honor, respect and material wealth. I desire to-night to show how the oncoming profession can reach the desirable goal. And while I am well aware that I shall, in some measure, go over ground traversed by others before me, still I am consoled by the reflection that the accomplishment of all changes for the better in the world's history, whether social, scientific, political or religious, have been wrought by the persistent, repetitive and untiring efforts of men.

In the first place, in order that the physician may approach the ideal, and merit and gain the greatest confidence of his community, it is necessary that there be in his mental and material make up a certain adaptability for such a life. "You cannot make a jewelled purse from a sow's ear," and you cannot metamorphose an inherently coarse and unsympathetic nature, with mind vicious and grovelling, into the kind and generous, sympathetic and polished attendant of the boudoirs of culture and refinement. Cultivation and training may do much, but they cannot give that warmness of heart, gentleness of manner and ingenuousness of thought so essential to the attainment of the highest phase in the physician's life. As of the poet, with equal truth it may be said of the physician, "Doctor *nascitur, non fit.*"

Then the born physician must receive suitable educational qualifications outside of the technique of his profession. The intelligence of a community judges the capabilities of a medical man more by what information he possesses outside of his professional studies than by any lucubrations in the recondite subjects of embryology and bacteriology.

Outside of the reputation for scholarship which a liberal education brings, a certain amount, and that not a minimum, as some would have us believe, of mental culture and training is absolutely

essential. The problems to be met and solved in the every day routine of a physician's life comprise some of the grandest and most complex which engage the attention of men. The medical mind must be taught to think quickly, to estimate the nice relations between cause and effect, and to form and put into execution an unerring judgment. In order to accomplish such ends it must grow up and be developed under the nourishing influences of a proper pabulum. Mathematics, in its higher problems, with thought along the plane of pure abstraction; physics, with its logic of cause and effect and correlation of forces; the classics, with its golden chains linking us to all the human nature, to all the poetry, beauty and glory of the mythic poet, and bringing to us along with the charm of historic life in antique time, a richer power of clothing the thoughts which people the brain in the euphonious habiliments of perfect language—these, all these, are the food upon which the professional mind must feed in order to accomplish its full development. The only aristocracy or caste in which I believe is the aristocracy which comes from this higher moral and intellectual culture, and in such an aristocracy lies the salvation of this Republic. I am convinced that the iambics and hexameters of our colleges and universities are the forces which have given, and will give, perpetuity to a government whose very foundations have been, and are now, threatened equally by the anarchistic, ignorant and discarded foolstool of Europe, and by the money power indigenous to our own soil. There is something in this higher culture which inherently tends to lift man's attention away from the degrading things of time and sense, to chasten his thoughts, to purify his sentiments and to point to that high goal of excellence which should be the working ideal of every heart. In view of such facts how important it is that the members of the medical profession, both for their sakes and their native land, should enter upon their life-work with minds trained to high and liberal thoughts, and hearts imbued with that broad and protecting patriotism which only the loftier moral and intellectual culture can inspire. Along this line, my honored confrérés, lies our quickest route to that eminent position in the public esteem which the importance of our work naturally assigns to us; and only in this way can we, as individuals and as a class, hope to fathom and appreciate all the rapid and complex unfold-

ings that are being made from day to day both in the science and art of medicine.

After being born and reared to a natural fitness for a physician's life, after being thoroughly trained in both analytic and synthetic thought by the mental stimulus which a liberal education affords, the labor of acquiring the necessary professional technique may properly be undertaken. As this is the distinctive feature of a doctor's training, so it is the most important, and no one can hope to gain substantial and honest success without it. Only a few years ago, in the effulgent light of the nineteenth century, amidst the civilization which surrounds us in this Grand Old State, any one, so desiring, could legally trifle with the life of his fellow-man. The ignorant boor from the plow or the bench, the blatant quack, fresh from the diploma mill, the scheming charlatan, the callow stripling, from the third rate college, could assume at pleasure the *toga medicalis*, and bask in the honors of the doctor's title with as much assurance as the most dignified and cultured disciple of Æsculapius. Thanks to the efforts of this Society this foul blot has been removed from the escutcheon of the Old North State's fair honor, and to-day some considerable preparation must be evinced by him who would assume the responsible functions of the physician's office. Let the good work go on. Let the standard in morals, in preliminary education, in professional training, be continually elevated towards the ideal, until none, except those thoroughly equipped in all parts, be admitted to the ranks and honors of the ancient guild. Let us see to it that, to be a practicing physician in North Carolina shall be a synonym at home and abroad for all that is honorable, for all that is cultured, for all that is scientific in the medical profession. To accomplish that it is necessary that the time of professional training be lengthened. In a new country like America there is an innate tendency to the precipitancy and hurry of youth; but we are now becoming sufficiently matured to lay aside the skurry and bustle of our younger days, and in matters medical, at least, we would do well to imitate our more settled frieads across the water. There from three to five years are deemed requisite for the completion of medical training, while in our own country the same work is supposed to be accomplished often in one year. The author of this essay left home in October without any previous preparation, and on the first day of the following July—

just nine months—he was declared by one of the best universities in this land as learned in all the mysteries of the theory and practice of medicine, and as a suitable one to whom the lives of his fellow-man might be entrusted with safety. No doubt, in theory, there was a fair show of fitness; but in practical application there was much to be desired. During my whole student career I had not seen a sick individual nor a single surgical procedure. I returned home thoroughly unprepared to cope with the exigencies which confront the physician at every turn, and but for the practical training and help received from an older brother, I doubt not that many a pang would have remained unassuaged which should have been relieved, and to-night many a soul would be awaiting me on the other side of the Stygian stream with taunts and curses for their "untimely taking off." The ideal physician should not only be thoroughly drilled in the science of medicine, but should have opportunities under the eye of an experienced teacher for putting his knowledge to the test of practical application.

At this point I desire, in an episodal way, to say a few words to those young gentlemen who are now just upon the threshold of their important career. The often vital mistake which most young men commit in any of the vocations open to their choice is too great anxiety to enter upon the responsibilities of real life. As already intimated, they are unwilling to give those years to preparation which future decades, ladened with ponderous demands, necessitously require. How small a pittance of time does one or two years appear when viewed in the light of the forty years of responsibility which are to follow. What is the cause of this precipitancy? What so impels the young heart along the arduous way? It is not ambition to be eminent; if so, the most feeble dictates of prudence would discover such to be a suicidal policy. It is not poverty, for to him that willeth there always opens a way. Leaving out of consideration that inborn indisposition to labor, which, alas! afflicts the majority of our race, I am convinced that woman, yes, lovely and lovable woman, is the occasion of many a failure which saddens the main of professional life. Do not understand me as wishing to take one gem from the jewelled crown of pure and beauteous womanhood. I belong to that majority who believe that, of all the beneficent gifts from the creative hand of God, a woman, pure and good, excels them all, and is more beau-

tiful than "any other form of matter ever seen on land or sea, in flower or gem or living thing."

> "As flowers beneath May's footstep waken,
> As stars from night's loose hair are shaken,"

so the most vivid joys which perfect the life of man spring wherever her gentle step is heard, and from her presence there is distilled the rarest benedictions upon the responsive heart. It is not, therefore, against woman as a class that I inveigh, but rather against that love for a particular individual which so strongly impels the youthful heart to the (oftentimes) disastrous entanglement of matrimonial alliance before thorough preparation has been made for life's important work. The exactions of a loving wife and the discordant music of the cherubic infant, however joyous they may be in the serene days and calm of later life, are not very conducive to success in your hours of reflective study, and will unconsciously ween you away from that mental application so essential in the first years of practice to fix the attainments of your student career.

For these reasons I would bid the youth who aspires to great things, who would approach the ideal, to beware of love. Of the smooth glance and the siren voice beware; for it is too late when on the heart the "torrent softness pours." "Then wisdom prostrate lies, and fading fame dissolves in air away." When you are ready for a wife select with your maturer judgment a suitable helpmeet, and she will crown your life with choicest blessings; before that time even the best will be a clog and a hindrance.

We now come to that part of our subject which more clearly touches those present upon this occasion. What shall the medical man add to his innate qualities, his scientific accomplishments and technical information, to render him the ideal in medical practice. It goes without saying that he must be neat in attire, yet not a devotee of ultra fashion; courteous in manner, yet not sycophantic; gentle and persuasive in speech, yet not vacillating or womanish; silent as the grave in professional matters, yet not cold and seclusive; chaste in conduct, yet not to prudery; temperate in all things, yet not a fanatic. In addition to these characteristics, he must practice medicine for pure love of his work, and carry in his bosom a broad and catholic feeling of kindness for every creature whom God has made—a kindness that is forever responsive to human

suffering, and will not hear unanswered the wail of anguish from the afflicted one, whether he be the veriest pauper of the kempt shanty or the lordly possessor of the splendid mansion. The ideal physician will not linger to quibble about a paltry fee, when, in his imagination, he sees the palid form writhe in torturing agony. The truth is, my friends, the ideal physician will do his duty for duty's sweet sake, and because it thrills his soul to relieve the woes of terrene existence. The ideal physician as the ideal messenger of Jesus will go about relieving human suffering without anxious thought for fee or reward that is to follow. To him whose fancy pictures the real bless of life as reposing in the lap of vast and luxurious material wealth, I would advise a different path in life from that the physician must tread. The history of the profession shows that the doctor who has accumulated more than a competency is indeed a *rara avis*, and when such an one is discovered it will be found that the riches have come through other avenus than that lined by pills and powders, by days of ceaseless toil and nights of broken rest. But I am happy in the reflection, there comes to the faithful physician a reward for his service which cannot be measured by coins from Ophir, as sweet as the solacing joys of religion and as lasting as the immortal mind. Disappointment must ever await him who attempts to satisfy the thirsty longings of his infinite soul for happiness with the material things which finite time supplies.

> "As well seek for mellow grapes beneath the icy pole,
> For blooming roses on Death's pale cheek,"

as to expect to fill the soul, which Heaven has given us, infinite in its cravings, with the paltry offerings which time and sense can furnish. The unspeakable joy which thrills to its remotest ganglion the soul of him who loves his fellow-man, and who, solely on account of such love, without hope of reward, has assuaged the pangs of physical pain and smoothed down the anxious brow of sorrow, will remain to comfort and bless when the material rewards of men have perished from his grasp, and, as he passes the portals of the "narrow bourne," will crown his departing life with a halo of light, and pour over his heart the chrism of a beautiful peace. Love for our fellow-man! This is the crown jewel of the ideal physician's heart—yea, the very essence of all religion. However

much the nations of the earth may differ in their conceptions of Deity and their form of worship, whether theybe Fetichist, Buddhist, Moslem or Christian, the very highest test of virtue in them all is kindness shown to their fellow-man in distress. Perhaps we may never know the true teachings of Jesus in regard to the rites and ceremonies of the Christian Church—the mode of baptism and the proper subjects for such a rite, the nature of the Eucharist and its proper participants, priestly succession and the governmental policy of Church organization—but we do know, in the estimation of the greatest of all physicians, at whose magic touch the tentacles of the most mortal malady never failed to unloosen, the simple act of Him who bound up the wounds of the unfortunate on the wayside and poured words of sweet consolation into the despondent heart, far outweighed all the gilded paraphernalia and gorgeous ceremonial of the Jewish Church. If material wealth should come as a natural sequence to the faithful discharge of duty, the ideal physician will rejoice, since it gives him wider opportunities for blessing his kind; if it come not, he will not repine, for in the sweet garden of faithful duty done there grows a "charm for every sorrow, a balm for every woe." With the friends whom his goodness has linked to him with hooks of steel, with a mind forever vernal with the reflections of conscious duty done, and an honor unbesmirched, he can defy the reverses of fortune and smile at the irony of fate.

"O, time, when life beats feebly in my veins
And wintry snow upon my head descends,
Take health and strength and all my paltry gains,
But leave me 'a clear conscience' and my friends."

As there is an ideal physician, the best to be conceived in the profession of medicine, so there is his correlative,

THE IDEAL PATIENT.

While the physician has duties to be discharged and obligations to be sacredly fulfilled towards the patient, with equal force the patient is bound to his medical attendant. It is the first duty of the patient to use his best judgment in the selection of his attendant, and when the selection is made, to adhere to him under all possible circumstances, until unfitness for the trust reposed is

thoroughly shown. In such selection all those qualities should be considered which have been already adduced as constituent of the ideal doctor. If the choice be made for any other reason, because such an one is less expensive, is your kinsman, your friend, your neighbor, your co-worker in Church or State, the time will inevitably come, when the pangs of the body remain unrelieved and *Pallida Mors*, with sickle keen, approaches for an untimely reaping, that you will regret your choice. The best patient never chooses his doctor in a haphazard and careless manner, nor after he is chosen views him with commercial eye as an ordinary hireling, but as a friend and adviser in the more serious and sacred aspects of life reposes in him the most trustful confidence, and unbosoms to the sympathetic ear the secret burdens of himself and family.

Of course, such a patient, unsolicited, will not only bestow upon his attendant, thus selected and trusted, a tangible honorarium commensurate with the material service rendered, but will at the same time appreciate the fact that there is often manifested on the part of his doctor a co-suffering, a mental strain, a disregard of personal danger unredeemable in shekels of silver.

When the young wife and expectant mother lies pale and exhausted by the throes of parturition, "life trembling to a point, leaping off by fits," and husband and relatives stand paralyzed by fear or stupified by grief, then the calm, but sympathetic, medical attendant bears alone the burden of two precious lives. With mind keenly alive to the dangers of the moment, and heart pulsating in responsive suffering to the anguish around him, with one hand, as it were, he shields from the cormorant—Death—the fair form under his care, and with the other conducts the new life through that "triumphal arch under which every candidate for immortality must pass." It is for service such as this, my friends of the laity, for which your material wealth furnishes no adequate reward, and the debt must be liquidated, if ever, by the grateful acknowledgment of an appreciative heart. Do not hesitate, then, both in the doctor's presence and in his absence, when there is good prospect of his hearing it again, to speak words of commendation and gratitude, for I assure you they will enrich his toiling life more than pecuniary gain, will fall upon his receptive ear as an eloquence more persuasive, as a music more sweet than ever echoed through Attic temple, or fell from golden harp.

When the gloomy pall of pestilential stroke rests upon the land, and the very atmosphere is freighted with a funereal sadness; when the invisible enemy, the death-bearing germ, marching under the black banner of extermination—the dark wing of Azrael—more destructive than Attila, more relentless than Nero, treads the viewless fields of air, enters our cities, our homes, and sits by our firesides; when the terror-stricken multitudes desert their friends and vacate their homes, leaving behind them in their flight only poverty, ghastly disease and bitter death, then the faithful physician, uninspirited by strains of music or the huzzahs of comrades, stands unflinchingly at his post like warrior at cannon mouth. All day long and through the silent watches of the night, with a professional prescience oftentimes of the hopelessness of his labor, he walks the deserted city, the echoing sound of his footsteps falling upon his weary heart like clods on coffin-lid, and administers to the pale victims of the fell destroyer that mental and physical consolation which only the faithful physician can bring.

While for such a hero there will be no crown of bays or hymn of panegyrist, no breathing bronze, no marble shaft or cenotaph, still, in the ideal patient's breast, there will live a memory of such a service more enduring than monuments, "more perennial than brass."

The life of the physician is peculiarly a wearying one in its endless routine of duty. There is no moment he can call his own from one year's end to another, but he is the continuous slave of those who may require his service. The lawyer lays aside his brief between terms and rests from his labors; the minister, in this day of fashionable invalidism, deserts his parish for the exhilaration of seaside and mountain; at periods the workman lays aside his tools and the ploughman his share; the laborer watches with joy his lengthening shadow since it speaks of the repose which approaching night will bring; and to all these the Sabbath, sweet day of rest, with its complete cessation from all work and care, brings to the body and mind of each holy influences and refreshing repose. The faithful physician has no moment, no day, no night, no Sabbath, which he can claim, for death, relentless and insatiable, roams the earth at all seasons and plucks his victims at all times. In view of such facts the considerate patient will not require of his doctor unnecessary

and untimely labor, nor disturb, except under the most imperative circumstances, his hours of needed rest and sleep.

The life of a physician is filled with delicate situations, and his simplest expressions are often, honestly or maliciously, misinterpreted and corrupted.

Every community has its incubus of human vampires who, characterless themselves, find in their own depraved bosoms the standard by which they estimate the lives of others, who regale themselves as upon sapid viands with the slanderer's odious tale, and are never so happy as when they chant the hymn of character-defamation. The ideal patient lends no listening ear to such as these, is ever ready with the ægis of his protecting denial and refutation to shield the faithful physician and friend from the envious and envenomed shafts of those who would assail him, and never entertains, except upon the most indubitable testimony, the incriminating criticisms of jealous rivals, nor the insinuating thrusts of malicious foes.

In summation, the ideal patient will never suffer his doctor to solicit material reward; will ever appreciate, and show it by grateful words from a more grateful heart, the soul service which money cannot buy; will rejoice in the moments of success and pleasure, and in the sombre hours of defeat and depression will swiftly extend the warm and generous grasp of sustaining friendship. My confrérés and friends of the laity, may it be the acme of ambition in this reciprocal relation of doctor and patient that each may lead the other in all that is generous in human nature, in all that is lofty in human conduct. And in all future years and meetings, even until, in the finality of earthly hopes and issues, we meet

"Beneath far lovelier skies,
Than sprinkle beauty through the balmy South."

As physicians, laying aside all jealousies and dissension, as patients, putting away all distrust and suspicion, may we labor together in concordant harmony towards the attainment of

THE IDEAL IN MEDICINE.

SALOPHEN.—Dr. W. H. Flint finds that salophen (acetyl-para-amydo-salol) acts very well in acute rheumatism, given in doses of fifteen grains every three hours.

REPORT ON OBSTETRICS.

By W. O. McDowell, M.D., Scotland Neck, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

OBSTETRICS.

Of all the bitter scenes and sad disappointments that must be faced by a physician, there is none more pitiable, none more profoundly sad than that which the lying-in chamber sometimes presents—a living infant and a dead mother

This one thought should be sufficient to cause a medical man to give every lying-in woman who has placed herself in his hands his most serious attention. When an expectant mother has confided herself to the hands of a physician he should, if possible, visit her previous to her confinement, in order to ascertain her disposition, her temperament, her mental or physical peculiarities—whether, if a multipara, she be subject to eclampsia, puerperal mania, or any other avoidable malady. Or, if she be a primipara, he may form some idea of what he is to encounter. One thing he will certainly gain—he will save his patient a great deal of anxiety and excitement on his arrival at her confinement, which might be attended by a cessation of pains and perhaps delay, thus causing loss of time which might be more profitably spent elsewhere. He should make some suggestions in regard to the chamber in which the confinement is to take place. This is very important, for I have frequently seen onions, potatoes, pumpkins, old clothes and shoes under the bed on which a parturient woman was lying. Such things, of course, furnish a nidus for the great variety of deadly organisms which swarm in a lying-in chamber, and should be removed before the hour of confinement arrives.

Having made the aforenamed visit and given all necessary instructions, the physician returns and awaits the summons. When called he should spare no time in getting to his patient's side. After having ascertained her condition, he should at once turn his attention to the condition of the bed, room and surroundings generally. Only a few days since I was called to deliver a patient, and, as is my custom where there is cause to suspect any such thing, I told the husband that anything that might be under the

bed would prove a fruitful source of septic poison, whereupon he drew out a box of pork or bacon that had been packed away under the bed. I believe in Listerism! By Listerism I do not mean the indiscriminate use of carbolic acid, but its judicious application where antiseptic measures are necessary. I mean, too, not only the use of carbolic acid or other antiseptics, but the most scrupulous cleanliness about the lying-in chamber. Dampness should be excluded from the room, all decaying or putrefying matter removed from about the building, and the very strictest hygienic measures observed in every way.

Examinations.

This subject has been frequently and freely discussed and various opinions advanced. I shall say nothing on the subject except in regard to frequency or infrequency of examinations. For a time I was of the same opinion as a great many others, that, after ascertaining the advancement of labor, the presentation and position of the child, examination was not necessary until just before the end of the second stage. Experience, however, has taught me differently. One reason, if no other, warrants me in making frequent examinations, and, in order that I may present it in an impressive manner, I will report a case:

Mrs. S., white, æt 43, multipara, sent for me, May 16, 1885. The patient had been in bad health for several months previous to confinement. When I was called the patient had some pains, and, on examination, I found the os beginning to dilate, the membranes having previously ruptured. The movements of the child were very great, so great, in fact, as to cause the patient to cry out at times. In about one hour after I arrived I noticed that all mobility of the child had ceased and that the patient was lying perfectly calm. I took hold of the hand, and, on pressing her pulse, found it very rapid and thread-like. With stethoscope over the abdomen no fœtal heart-beat could be heard. I was at once convinced that something was wrong, and, upon making an examination, found that my patient had lost an enormous amount of blood. The first thing my hand met with was the prolapsed cord. I felt for pulsation, but there was none—hæmorrhage still profuse. Gave ergot, but it seemed to have no effect. I then injected a syringeful into the thigh, which seemed to partly control the hæmorrhage. On

close examination, I found that the cord was tightly pressed between the fœtal head and pelvic bones and all circulation cut off—the child was dead. From loss of blood pains were very weak and accomplishing nothing; so I delivered her with forceps of a large female child.

Now, had examinations been made more frequently and the cord detected when it first presented, these alarming symptoms and a still-born child might not have been the result. If the cord is detected when first presenting, with any flat instrument—a common bonnet stave, if nothing else is at hand—reposition may frequently be easily accomplished. With one or two fingers in the vagina, fix the instrument against the presenting loop and gently push it up until it cannot be pressed by the head. I do not mean that the accoucheur should sit with his hand in the patient's vagina from beginning to end of labor, but frequent, brief examinations will not fatigue the patient, and no harm can come of it, whereas negligence in this respect might result in irreparable damage both to the patient and to the physician's reputation.

One of the principal causes of prolapse of the cord is the too early rupture of the membranes in absence of or at beginning of pain. The membranes should not be ruptured until the os is dilated or dilatable, and should always be done as the pain is passing off, for then the presenting part of the child is pressed down into the cervix, and thus prolapse of the cord is prevented.

A Cause of Prolonged Labor.

Many a prolonged labor might be much abbreviated if the accoucheur would but watch the position of the uterus. It will frequently be observed in these prolonged labors that, when the uterus contracted, the fundus will tilt forward over the pubes, turning the cervix back, with the os against the sacral wall, and thus prevent the fœtal head from advancing. To illustrate: On March 27th I was called to deliver Mrs. F., a lady who was in excellent health. I found her in the hands of two midwives, and was informed that she had been in labor for forty-eight hours with the strongest imaginable pains. On examination I found vertex presentation, but no os could be felt. I waited for a pain, which soon came. The uterus ascended and turned forwards, as described

above. Examining during pain, I found that the cervix had receded and was firmly set against the sacral wall.

By pressing the fundus back the cervix was brought forwards and found to be dilated to about two inches in diameter and very rigid—L. O. I. A. position. I gave 20 grs. of chloral hydrate, partly to give my patient a little rest, which was much needed, and also to relieve the rigidity of the os. I then pressed the fundus back in its normal position and kept it there by steady pressure. Pains were almost incessant, and in twenty minutes a large male child was expelled. This is only one out of many similar cases that I have witnessed.

This tilting forwards of the uterus is brought about by the coöperative contraction of the round and utero-sacral ligaments, for it will be remembered that the round ligaments send a thick loop up over the fundus in front, and are attached below to the spine of the pubis, while behind the utero-sacral ligaments run from a level with the internal os and are attached about the third and fourth sacral vertebræ. The round ligaments become very thick during pregnancy, and it is reasonable to suppose that the traction made by them during labor would be very great. All the pelvic organs are thrown into action during labor, and, when we remember that the round ligaments are drawing forwards at the fundus, and the utero-sacral ligaments are drawing backwards at the cervix, it is readily understood how the uterus is thrown out of position during labor.

In view of these facts I am convinced that many a tedious labor could be cut short by keeping the uterus in its proper position during contractions.

Management of Labor—Position of Patient, etc.

It is universally acknowledged that the patient should not be allowed the recumbent position during the first stage of labor, yet, under certain circumstances or for certain well-founded reasons, it must at times be allowed. If the patient be very anæmic or subject to vertigo, nausea and vomiting, then it would be better to allow her to lie down or recline in a chair. It is desired that the child shall, by gravitation, press down into the cervix, and thus aid the feeble contractions of the uterus, which are almost *nil* in the first stage.

Second Stage.

About the beginning of the second stage the patient should be put to bed. Whether she should lie on her side or back is a question that has elicited much discussion.

It is claimed by those who advocate the left side position that the dorsal position leads to unnecessary exposure of the person and increases the risk of laceration of the perineum by bringing the weight of the child's head to bear directly upon it. So far as the unnecessary exposure of the person is concerned, no well educated man will dare expose the genitals of his patient during labor unless it be under extraordinary circumstances. The hand is, or should be, educated to do its work under cover. The physician who is not able to ascertain the presentation and position of the child and the advancement of labor, to manage labor, under ordinary circumstances, from beginning to end, without exposing his patient, should quit the field of medicine and find employment elsewhere.

In regard to lacerations of the perineum, in 1881, when I was in the Maternity Hospital of Baltimore, we used the dorsal posture exclusively. In my practice I have used none other, and I have yet to see the first lacerated perineum resulting from such practice.

Supporting the Perineum.

Although Goodell says "the word *support* the perineum is a misnomer," yet we should, and do, support it. The plan of supporting the perineum by steady pressure with the palm of the hand, which causes it to be hot, dry and unyielding, has been sufficiently condemned.

Dr. Reamy, of Cincinnati, recommends a plan of supporting the perineum by strapping his patient up in towels and having two assistants to draw while he *engineers*. It is so complicated and inconvenient that we doubt its utility.

The perineum should be supported by uniform pressure made with the *tips* of all the fingers of the hand. I have seen but little or no good from the so-called plan of imitating Nature as recommended by Goodell—inserting two fingers into the rectum and pulling forwards the sphincter ani, while at the same time exerting pressure on the head with the thumb of the same hand. The more the sphincter ani is drawn forwards the more the vaginal orifice

is closed, and to overcome this extra pains and time are required. There is but one circumstance that will warrant it—when the perineum is rigid and unyielding and pains very strong. Under such circumstances we always fear perineal rupture, and anything that will retard the advancement of the head is gladly accepted.

I do not mean to condemn the practice of inserting the fingers into the rectum, for much good is often accomplished by so doing, especially when the fingers can be hooked over the child's chin.

Third Stage of Labor.

The medical profession is pretty well divided as to whether the placenta should be removed by *vis a tergo*, *vis a fronti*, by the two combined, or by the non interference plan.

Drs. Hunter and Taylor, of New York (*Am. Jour. Obs.*, May, 1884), believe in the Strassburg method—that neither the cord nor uterus should be touched, but that the whole expulsion, both of the child and after-birth, should be a natural process, which it will be if let alone.

Dr. Hadden makes traction on the cord and at the same time compresses the uterus.

Dr. Mundé recommends: "As soon as the head of the child is expelled, make steady, gentle manipulation and friction of the fundus, and follow it up until the uterus has diminished in size, so that it reaches only about half-way between the umbilicus and symphysis pubis, and when no higher than that, and the organ has a globular outline, one might be sure that the placenta was no longer within the uterine cavity."

I believe with Dr. Garrigues, that we should conform as much as possible to the physiological process of Nature, not as Drs. Hunter and Taylor say, leaving all to Nature, but by aiding her in the best possible manner. This is certainly not done by making traction on the cord. I have tried all the plans recommended and have devised some of my own, but all are hushed in silence when compared with the great Crédéan method. Some hold that it increases the risk of hæmorrhage, puerperal fever, etc., but reason, to say nothing of experience, teaches differently. It is well known that it lessens the probability of hæmorrhage, after-pains are much more infrequent, the great bug-bear adherent placenta is almost unheard of, and that, if puerperal troubles are influenced either way, the Crédéan method

has the advantage. Crédé's method is much lauded, and deservedly so. I sometimes think that those who maintain that the old way of removing the after-birth, by making traction on the cord, is preferable, simply do so for the sake of argument, but perhaps they have not yet learned the tact, and we should not censure them too strongly.

Tying the Umbilical Cord.

This is a well-known subject, yet there is room for comment. I believe that ill-health has been stamped into many a child's system from its mother's womb simply from indiscretion or a lack of knowledge as to the proper time of tying the cord.

The total quantity of blood in an infant is about one-nineteenth the weight of the whole body, which would amount, in a child of eight pounds, to about six and three-fourth ounces. Budin has shown by experiment that in every case where the cord was tied and cut immediately after the expulsion of the child that three ounces of blood would escape from the placental extremity of the cord, whereas, in late ligation none, or simply a trace, would escape. Thus we see that early ligation robs the child of about one-half the blood Nature intended it should have. It is not difficult, therefore, to understand why children of early ligation are "pale and apathetic," while those of late ligation are "red, vigorous and active."

Dr. Lusk (*Science and Art of Midwifery*) makes the following suggestions:

1. The cord should not be tied until the child has breathed vigorously a few times. When there is no occasion for haste arising out of the condition of the mother, it is safer to wait until the pulsations of the cord cease altogether.

2. Late ligation is not dangerous to the child. From the excess of blood contained in the fœtal portion of the placenta the child receives into its system only the amount requisite to supply the needs created by the opening up of the pulmonary circulation.

3. Until further observations have been made, the practice of employing uterine expression previous to tying the cord is questionable.

4. In children born pale and anæmic, suffering at birth from syncope, late ligation furnishes an invaluable means of restoring the equilibrium of the fœtal circulation.

If Nature designed that six ounces of blood were requisite for the welfare and to open up the pulmonary circulation of a seven-pound infant, six ounces, and no less, should be allowed. The physician has it in his power to allow three, four, five or six ounces, but if we are going to conform to the physiological process of Nature in one thing we must do it in all. Wait until the pulsations of the cord have ceased, then the pulmonary circulation will be opened up and the child will be prepared to oxygenate its own blood.

Abortions.

Does malarial fever cause abortion? It may not be a well recognized fact, but is none the less true, that abortions occur much more frequently in some parts of the State, or even in certain localities in a county than in others.

In the eastern part of Rowan county abortions have reached an alarming degree. It is worth while to mention that this section is known as *the malarial* district of Rowan county. It is along the banks of the Yadkin river, and of creeks whose valleys are full of lakes and ponds, the very generators of malarial poison. I have dispensed to patients in this district in malarial seasons, upon an average, an ounce of sulphate of quinine aday for six weeks. In this district, I say, abortions are becoming very frequent. I believe abortions are said to occur once in about every one hundred and twenty pregnancies. I am not prepared to say what the per cent. would be if all the labors in this district were recorded, but by consulting my note-book I find that, for the last four years, fifteen per cent. of the lying-in women attended by me in this district were abortions or premature labors, to say nothing of the many cases seen in time to arrest and bring to term. The causes, of course, are variable, yet I verily believe that malaria plays its part.

Behrmann says (*N. C. Med. Jour.*, January, 1886, p. 51):

1. Intermittent fever is very common during pregnancy, and occurs more frequently in the second than in the first half.

2. Pregnancy has no influence over the length of interval between the attacks.

3. Intermittent fever coming on during pregnancy is difficult to cure, and when recovery has taken place relapses are very common. Severe attacks may terminate the pregnancy prematurely.

4. Parturition takes place on the day and at the hour at which the febrile paroxysm usually sets in.

5. During the first stage of labor the febrile paroxysm often shows itself, running the same course as during pregnancy. During the puerperal period, also, attacks are very liable to occur, following the same type, except that the intermission is never complete.

6. Attacks of intermittent fever during the puerperal period do not render the woman more liable to other puerperal diseases.

7. The fœtus is affected by these malarial attacks as by any other elevation of temperature; its movements and cardiac sounds are affected in much the same way as when the mother is attacked by typhus fever.

8. A prolonged and severe attack of intermittent fever may lead to the early death of the fœtus.

9. Intermittent fever in the mother may affect the intra-uterine fœtus with the same disease.

Only the third and eighth paragraphs here bear directly upon the subject before us. Under the third head he says: "Severe attacks may terminate the pregnancy prematurely," and in the eighth "a prolonged and severe attack of intermittent fever may lead to the early death of the fœtus."

While I hold that malarial fever does, under certain circumstances, shorten the period of gestation, yet I am far from believing that all abortions that occur during an attack of malarial fever are caused directly by that malady. While it may be the predisposing cause, the exciting cause is frequently something else.

Many cases of abortions are attributed to malarial attacks, when really the cause of abortion was quinine or some other oxytocic remedy. I have seen many cases that came near aborting simply from the use of quinine—one did abort.

I was called to see Mrs. E. at 4 p. m, suffering with bilious remittent fever; gave just enough quinine to break up the malarial attack, and by the time the system was brought fully under the influence of the drug, strong uterine contractions set in. At 7 p. m. I was summoned hurriedly, only to arrive in time to witness a premature delivery. I am confident that quinine was the exciting cause of the abortion in this case. The patient had suffered for days with the same malarial attacks, and had felt no symptoms of pains until the quinine had been taken.

Other Rare Causes of Abortion.

I have seen four cases of abortion, and many others threatened, that were caused by the woman picking cotton in her apron, which was tied around the waist and left to hang in the shape of a bag over the distended abdomen. The combined weight, friction, irritation and heat over the abdomen might have had something to do with it, yet, I verily believe that the constant inhalation of the odor of cotton-seed was the true cause of abortion.

Santonin should not be given to pregnant women, for it acts upon the non-striated muscles like ergot, and will cause abortion.

Treatment.—In the treatment of threatened abortion we should first look for, and, if possible, remove, the cause. Viburnum prunifolium has proved itself to be the most reliable uterine sedative. Many cases have been saved, even when there was quite severe hæmorrhage, by the free administration of this remedy.

When all efforts fail and abortion is inevitable, the sooner the end is reached the better; but here, again, we must conform as nearly as possible to Nature's process. If hæmorrhage is profuse and there is just cause for alarm, then the uterus should be emptied immediately. We frequently see the fœtus and membranes coming away intact, but in many cases the secundines are left in the uterus. In such cases, especially in early abortions, we may expect trouble if we attempt to remove them at once.

When should the Secundines be Removed?

The earlier writers advised the expectant treatment of retained portions of the ovum—Churchill, Leishman, Meigs, Bedford, Zyler, Smith and Hodge, all advise the expectant plan. But when we consult late writers we find quite a diversity of opinion. Barnes (*Southern Clinic*, June, 1884) says that the first indication is to empty the uterus. Playfair tampons the vagina and gives ergot in cases of alarming hæmorrhage or of undilated os uteri. If the os still remains closed, he employs sponge tents for its dilatation, even though there be no urgent symptoms. Prof. A. R. Simpson advocates the use of a sponge tent, previously disinfected, as soon as abortion appears unavoidable. He also gives ergotine hypodermically. Schroeder employs the tampon if the hæmorrhage is alarming or the ovum is retained.

Angus McDonald says that in the ordinary run of cases, in which the hæmorrhage is not especially profuse, we ought to trust to ergot by the mouth, or ergotine subcutaneously, and that we shall most probably find that all will go on all right, except that we shall have to hurry the conclusion of the case with slight manipulation, and that wholesale imperfect plugging of the vagina is to be strongly deprecated.

Lusk endeavors to empty the uterus as soon as possible. If the cervix is open, he uses the finger; if it is closed, he employs the tampon, giving it three trials, each tampon being left in the vagina twelve hours. If, after removal of the third tampon, the cervix is undilated, he resorts to sponge tents.

Z. Johnson Alloway, of Montreal, advocates the immediate removal of the secundines with the curette, not the finger, either with or without previous dilation of the cervix.

Dr. Mundé gives it as his opinion that the future safety of the patient demands that the secundines shall be at once removed after the expulsion of the fœtus in every case of abortion in which such removal can be accomplished without force sufficient to injure the woman.

Dr. W. H. Farr is in favor of the immediate removal of the membranes after abortions. He employs the curette forceps, and opposes the use of the finger as being dangerous.

Dr. Walter Coles, of St. Louis, opposes the removal of the membranes as a matter of routine in every case of abortion. If the immediate symptoms are urgent, the placenta should be at once removed by the finger, forceps or curette, the cervix having been previously dilated if necessary. If there are no urgent symptoms the expectant plan should be pursued. Dr. Coles' paper was read before the St. Louis Obstetrical and Gynæcological Society. A general discussion followed, and it was evidently the sense of the Society that the expectant plan is safer than the immediate removal of the secundines by manual or instrumental means.

From the foregoing extracts it is seen that dilatation of the closed cervix with tents and extraction of the secundines with the finger or forceps, is the usual method of procedure of those who advocate the immediate removal of retained portions of the ovum.

Mundé claims that the manipulation is so free from danger that every physician can employ it.

Thomas writes: "There is always danger in dilating the cervix with tents, though it is by no means so great as to make one hesitate in employing it."

It appears, then, that the first part of Mundé's manipulation is attended with danger. Let us now consider the extraction of the membranes by the finger, curette or forceps.

Barnes, Playfair, Simpson and Lusk deprecate the use of the curette or forceps as being hazardous. They employ the finger and consider it safe and satisfactory. Alloway and Farr, on the other hand, regard the use of the finger as highly dangerous, and claim that the curette gives better results. We thus have testimony from the gynæcologists themselves that the forcible extraction of the secundines, whether manual or instrumental, is not free from danger.

Having shown that active interference in imperfect abortion is a dangerous procedure, we have to enquire into the necessity of the operation. If the placenta does not soon follow the fœtus, or is not forcibly removed, what happens in a majority of cases? Published statistics on this point would be valuable and interesting, but, unfortunately, there are none. We must rely on our individual experience for an answer to this question. I think that the practicing physicians will bear me out in the assertion that the great majority of these cases take care of themselves, or at least require but little assistance from us. The placenta comes away within the next twenty-four hours, or within a few days. By far the larger proportion of abortions, as of deliveries at term, fall to the care of the general practitioner, the family physician; only a very small percentage reach the gynæcologist in the first instance. The latter sees the exceptional cases, the cases which have resulted badly, and therefore seek his special skill.

Having argued that active interference in abortion is, as a rule, unnecessary and dangerous, it follows that I agree with those who follow the expectant plan of treatment. This does not mean, however, that abortions should be neglected. I have frequently left cases ten, twelve, and even twenty-four, hours before removing the secundines, where there were no alarming symptoms from hæmorrhage, and have never seen a bad symptom result from such practice, but almost invariably find the os dilated, and, in the majority of cases, the placenta lying in the vagina or presenting at the external os. After the secundines are removed the very strictest

Listerism should be observed in every way. Bichloride of mercury is the most reliable antiseptic for intra-uterine irrigation where such treatment is necessary, yet it should be used with caution, for, though generally safe, it is not entirely free from danger.

Hofmeier, in speaking of the ill-results from the use of this drug, says (*Am. Jour. Obs.*, May, 1884, p. 518): "I wish to note, in the first place, as to possible danger of even weak *solutions of corrosive sublimate*. . . . Our case was that of a puerpera, recently delivered, with complete rupture of the perineum extending very high up; the rent was stitched up, while the wound was irrigated with sublimate solution 1 : 1,000. About the fifth or sixth day the patient was attacked by moderate fever with low pulse, and died on the twelfth day after a very fetid diarrhœa. The autopsy showed extensive gangrenous destruction of the entire mucous membrane of the large intestine, continuing also, though of lesser intensity, into the ileum, where it gradually terminated. Examination of the intestines at the Patho-Chemical Institute clearly demonstrated the presence of mercury in the tissues.

"A similar case is reported by Stadtfeldt in a recent number of the *Centralblatt f. Gyn.* A puerpera, having some fever, was given on the fifth day after labor an intra uterine irrigation of sublimate solution of 1 : 1,500. During the irrigation there was slight collapse, and five days later increased diarrhœa, vomiting and suppression of urine. The case terminated fatally. In the large intestine there were likewise numerous ulcerations, and, besides, parenchymatous nephritis.

"These two cases, in which comparatively small quantities of a moderately concentrated solution of bichloride of mercury were employed, must certainly impress upon us the need of the greatest caution in its employment in puerperal women."

In giving intra-uterine injections of any kind we cannot be too careful. The temperature of the water, strength and per cent. of the antiseptic used, condition of patient, kind of instrument and how to use it—this is very important, for an unskilled hand may tear open the mouth of veins that lie ready to absorb any septic matter that may be in the uterine cavity and convey it directly to the heart and brain, and, should such be the case, what is the result? The patient is killed as effectually as Bruno killed Lord Byron. Thorough disinfection of the hands and instruments is of vast im-

portance. The present state of bacteriology must convince even the most skeptic and conservative physician that soap and water exercise not the slightest influence over the microbial organisms, and that the true antiseptic agents have to be resorted to. Anything that absorbs, neutralizes or destroys putrescent effluvia, miasmata or contagia, and thus removes the cause of infection, are disinfectants. Boric acid, chloride of zinc, biniodide of mercury, carbolic acid, permanganate of potash and muriatic acid have all been tried and found more or less valuable for disinfection, but here, again, experience shows that sublimate solution is superior to them all.

If physicians would observe the strictest cleanliness and antiseptic measures in every way about the lying-in chamber we would hear less of septic troubles in puerperal patients.

GYNÆCOLOGY.

Although Hypocrates gives us the first literature on the subject of gynæcology, there is no doubt, if such could be had, that Egyptian annals would show that it was practiced long before his day. Experience has been added to experience, research upon research, volume upon volume, has been presented to the profession by those most skilled in the practice, until to-day gynæcology stands as one of the first branches of medicine.

The subject of gynæcology presents a wide field for those skilled in making theoretical advances. Much, indeed, has been said and done, but, with a just reverence for our fathers and forefathers who have handed down to us such a vast amount of knowledge on the subject, we feel safe in saying "the half has not been told." Many have written, many are writing to-day. Everyone who writes a treatise on the subject thinks his the best. We might say, when comparing these works—

"There's but one wise man in the world,
And who d'ye think it be?
'Tis this man, that man, t'other man,
Every man thinks 'tis he."

Retroversion of Uterus where Fundus is Bound to Hollow of Sacrum by Peritoneal Adhesion.

This form of uterine displacement is very difficult to treat, espe-

cially when it has existed for a long time. When the adhesion is very limited and recent, it may be broken up and a favorable prognosis can almost invariably be given, but when years have elapsed and the adhesion is extensive, it would be better to adopt the do-nothing treatment, were it not for the fact that sterility is the rule in nearly every case. The very forcible pleading of husband and wife in such cases, the great desire for offspring, make us sometimes undertake to remove, if possible, the cause of sterility.

The only plan of treatment that I have found to result in any permanent relief is the forcible separation of the uterus from the sacral wall. This is done with a steel sound made for the purpose, and which, I have no doubt, is in every day use in the profession. After improving the general health as much as possible by general treatment, the os is sufficiently dilated with tents or by the use of uterine dilators, the patient anæsthetized and placed upon the table on left side with knees drawn up to chest. Erich's or Sims' speculum (Erich's is better) is placed in the vagina, the tents removed and the aforenamed sound is introduced up to the fundus. Then, taking hold of the sound with both hands, the uterus is torn away from the sacral wall and pressed forwards until it can be felt in the suprapubic region; the uterus is then fixed by the use of cotton or sponge tampons and kept so for from eight to sixteen days, according to circumstances. After inflammation has subsided, Hodge's pessary, or better, Smith's modified Hodge, is used to keep the uterus in position. This should be worn for an indefinite period—at least until there is reason to believe that the uterus has been fixed in its normal position. This having been done, and the necessary tone given to the nervous system, it is more than likely there will be no further trouble.

I do not claim that this is a new mode of treatment; it has been practiced for years, and, perhaps, if Herodotus and other ancient writers were living to-day, they could tell of such treatment in their day. Aëtius (*Thomas on Diseases of Women*) speaks of a uterine sound, passed into the uterus and employed as a repositor, and advises that displacements of the uterus should be corrected *specillo et digito.*

Pelvic Cellulitis.

Pelvic cellulitis should properly be classed under the head of

obstetrics, as nearly every case is a result of parturition, but as there are exceptional cases, we will speak of it under the head of gynæcology.

As this is a well-recognized disease, and one that has been so successfully treated, I shall not rehearse what others have written, but wish to report a case, the like of which is seldom seen by the general practitioner.

The patient had been delivered by a midwife, was not allowed the recumbent position during the second or third stage of labor, but was forced to stand on her feet and hold to the bed-post. After the placenta had been withdrawn by the cord blood poured profusely from the uterus, the patient fell in syncope, and was then laid upon the bed. I was called in five days after delivery, and found the patient with high fever, abdomen much swollen and tender. There was slight peritonitis with all the signs of pelvic cellulitis. She informed me that the midwife had handled her roughly, that she had "gouged and torn" her in a fearful manner. With all the aid I was able to give she went on from bad to worse, until her abdomen was a mass of abscesses. I made a free incision in left inguinal region, which discharged an enormous amount of pus. Soon there were two other points, one in median line, and the other in right inguinal region, that had to be opened. Still the alarming symptoms did not abate. Then there was a large amount of pus discharged per rectum. I was sure this would give the desired relief, but not so. Two days later I found pus presenting about right labia minor; this having been freely opened and the pus allowed to escape, the alarming symptoms began to subside.

Although this point discharged pus for a month or more, my patient convalesced steadily and made an excellent recovery.

The only feature that is worth noticing in this case is the number of points of exit by which the pus escaped—three points through the abdominal wall, through rectum and pudendum.

Dr. Savage (*Thomas on Diseases of Women*) reports a case in which the points of opening were vagina, bladder, rectum and inguinal region.

Treatment was directed to keeping up patient's system as much as possible. Internally I used iron, quinine, nux vomica, ergot, opium and stimulants when necessary.

Alexander's Operation for Retroversion of the Uterus.

Retroversion of the uterus can generally be corrected by the use of cotton or sponge pledgets or the ordinary retroversion pessaries, but there are exceptional cases in which, on account of pain and tenderness, the patient is unable to wear any hard instrument.

Sometimes, by using vaginal injections of strong solution of kali brom., the tenderness and pain will subside sufficiently to enable the patient to wear a hard rubber instrument. But when all such efforts fail, Alexander's operation offers the best chance of relief This consists in exposing the round ligaments at the external ring, and drawing them out through the ring, thus lifting the uterus; then securing the ligaments near the external ring, thus fixing the uterus in its new position. It is better, in my opinion, to cause the ligaments to attach to the face of the pubic bones between the spine and symphysis, instead of to the loose tissue, for this tissue, being in itself yielding, might in time give way and allow the uterus to again fall back into hollow of sacrum.

After completing the operation tampon the cul-de-sac to support the ligaments. Keep the patient in bed three, four or five weeks, then introduce Hodge's or Smith's pessary, and let this be worn for at least two months, when it will be found that the ligaments are capable of holding the uterus in its normal position.

Amenorrhœa and Dysmenorrhœa—New Treatment.

It is claimed by Chéron (*Philadelphia Medical Times*) that the action of santonin on the vascular system, and its effects upon the muscular fibres, make it useful in amenorrhœa and dysmenorrhœa, especially in those forms where the malady is dependent upon adynamia, anæmia and chlorosis, and more especially when the menses are as yet imperfectly established. It not only relieves the retro-ovarian congestion, but acts also as a tonic to the general system. Three-fourths to a grain should be given *ter in die*

Retro- or Anteversion of the Uterus, Complicated by Vesico-Vaginal Hernia or Cystocele.

Much time has been spent in trying to devise some plan by which to overcome this much-dreaded trouble which old physicians say has been treated by them for years without any apparent benefit—a

trouble for which no physician or gynæcologist could, heretofore, give a favorable prognosis. In the early days of my practice I met many cases of this obstinate disease. I tried to give relief by every conceivable method—used Meig's ring, figure of 8, Thomas' anteversion and Gariel's air pessary, but nothing gave satisfaction. I consulted older physicians, but they simply discouraged me by telling of their sad disappointment and ill-success in treating this trouble. Finding that there was nothing to be done but follow the old routine of treatment, I set to work and had an instrument made which is giving entire satisfaction. It fixes the uterus in its normal position, no matter what the displacement may have been, whether anteversion, retroversion, prolapsus uteri—either of the three degrees—while at the same time it lifts the bladder and roof of the vagina to their normal position and keeps them there.

The instrument is not difficult to introduce, and when in position there is no hard substance against which the vaginal portion of the cervix can press. It is indestructible, and when in position it cannot come away of itself.

This instrument is not only useful in the above-named disease, but is valuable in any case of vaginal hernia where the tumor is formed in front of the broad ligaments. These tumors may be formed by a prolapsed vagina, a portion of omentum, a portion of intestine, or omentum and intestine may come down simultaneously and form the tumor.

An Anomalous Uterus.

The patient is forty years of age, the very picture of good health, masculine appearance, considerable dark moustache, married eighteen years, but has never borne children.

She suffers at times with extreme nervous excitement, palpitation of the heart, etc. All of these symptoms are believed to be the result of sexual excitement without reaching a *healthy culmination.* The cause of this is explained in three words—an impotent husband.

The husband was advised to make frequent attempts at sexual intercourse with a hope that the desired result might finally be brought about. But this only excited the wife and made her nervous attacks more frequent and severe. The symptoms growing more and more alarming, I was called in. I ascertained that she was almost invariably seized with these attacks immediately pre-

ceding or following menstruation. Supposing that the cause might be, in part, due to some interior trouble, I made an examination and found the following: The hymen was only partly ruptured, the vagina small and rigid, and it was with difficulty that the uterus could be satisfactorily examined, but, by the use of Erich's speculum, a full view was obtained. It was hard to determine what was presenting—a fold of lax membrane enveloping a hard body. A fold of membrane covered the vaginal portion of the uterus similar to the prepuce in the male. When this had been stripped back a normal cervix presented; it was not unlike a short and most perfect male penis. We can hardly say whether, if the husband had been competent, this would have been a cause of sterility. I asked the patient to go with me to Dr. Summerell's office, where a consultation was had. We were unable, under existing circumstances, to say whether the abnormal condition of the uterus would have prevented conception or not.

As to treatment, it would have been an easy matter to divide the membrane, which would have laid bare the cervix, but we thought as the patient was nearing the menopause and the husband impotent, we would let it alone. I afterwards used a small ring pessary for a long time, which kept the fold drawn back over the cervix, and now, on examination, the os presents, the fold of membrane being somewhat retracted. The menstrual periods are passed with little or no pain, and the general health of the patient remains good.

A Greek Medical Work 2,000 Years Old.—In the last number of the *Classical Review* F. G. Kenyon, of the British Museum, who last edited the newly discovered papyri of Aristotle and Herondas, describes another similar manuscript recently obtained for our national collection, which contains an ancient treatise upon Medicine by a Greek author, probably of Alexandria. The work, which has apparently hitherto been lost, is of much interest. Among the writers cited are Euryphon, of Cnidus, Herodicus, Hippocrates and Timotheus.—*British Medical Journal.*

SELECTED PAPERS.

THE TREATMENT OF STRANGULATED HERNIA.

By W. B. De Garmo, M.D., Professor of Special Surgery (Hernia) in the Post-Graduate Medical School and Hospital.

It is probable that there is no branch of surgery wherein so many lives have been needlessly sacrificed as in that department which relates to the treatment of strangulated hernia. This is not due to any shortcoming on the part of the surgeon, but to the fact that he is not called to the case until too late to restore the parts involved to their normal condition.

The unfortunate part of the whole subject is that the general practitioner does not fully realize the danger involved in delay, nor does he feel competent to carry out anything but the strictly medical treatment of the case.

The sooner the general practitioner recognizes the fact that the medical treatment of these cases leads only to complication and death, the sooner will the safety of the patient be secured. The delay involved in trying one remedy after another is fatal, while, on the other hand, if looked upon as a purely mechanical trouble requiring immediate relief, there is no reason why a large mortality should follow this accident.

The theory that muscular spasm is an active cause of strangulated hernia is thoroughly exploded, and therefore little can be expected from remedies given with the view of relaxing this supposed contraction of the hernial opening. Its origin is, in the majority of cases, due to the forcing of a mass of intestine or omentum through an opening of smaller calibre. The surrounding structures are usually of inelastic fibrous tissue, and while compression of the neck of the tumor does not impede the return flow of blood from the protruding parts, all goes well; the venous circulation is easily obstructed, however, and, the arteries having more resistance, the blood is still pumped into the parts, but not fully returned. Congestion and enlargement of the displaced viscera result, and the unyielding constricting band is thereby tightened until all circulation is shut off, and death of the incarcerated part takes place

We have here, then, as purely a mechanical difficulty as would result from tying a strong cord so tightly round one's finger as to stop all circulation, with the addition, in the first instance, of dealing with parts whose freedom is essential to continued life. Why, then, lose valuable time in experimenting with internal remedies?

It would be a waste of words to even name the remedies which have been recommended from time to time in the medical journals, and only one will be considered.

Opium in its various forms has held the field for many years, and has cost many a sufferer his life. This sacrifice has not been due to the direct effect of the drug, but owing to the relief from pain which it has afforded, and consequent delay. The physician finds his patient in extreme agony, and naturally (rightly so) seeks the first means of affording relief. Now, if he would only avoid being deceived, and allowing his patient to be deceived, by the relief which the opiate affords, all would be well; but such is not usually the case. The minds of the patient and the doctor are usually relieved as pain subsides, but dangerous pathological changes are going forward with the same rapid strides as before the opium was administered. It is perfectly right to afford relief from pain at the earliest moment practicable, but rapid preparations should be made to release the bowel from the fatal band by which it is surrounded.

This brings us to the consideration of means of relief to be tried before operating. They can be briefly disposed of, for they are few in number, and might be tabulated as follows:

1. Opiates (morphia, hypodermically) for relief of pain only.
2. Sulphuric ether applied to the tumor.
3. Taxis gently and intelligently applied.
4. Taxis under anæsthesia.

The caution having been sounded regarding the use of opiates, except to relieve pain while something more rational is being done, we will proceed at once to the consideration of the other means which it is justifiable to try before using the knife.

I have for many years looked upon the *early* application of ice as a most valuable method of reducing strangulated hernia—this only in the earlier stage, before the vitality of the parts has been seriously impaired; but after the experience of Finkelstein, who

reduced 54 out of 58 cases by the external application of sulphuric ether, I am led to give this preference over the use of the former substance.

His method is as follows: The hips are well elevated, the parts exposed to the air and anointed with sweet oil. A tablespoonful of ether is then poured over the tumor every ten or fifteen minutes. The intense cold produced by rapid evaporation is believed to act not only upon the engorged blood-vessels, reducing their size, but upon the bowel itself, increasing peristaltic action.

Here is a method which can be used by the practitioner who first sees the case, without fear of doing harm, while he is preparing to operate.

Regarding taxis, however, it cannot be said that the average physician may not do great harm by its use, although the majority feel that this is the one thing that they are well qualified to do. Rude manipulations, based only upon the one idea of pushing something back into the abdomen, accomplish very little, except to carry the parts up on the outer surface of the abdominal wall.

I wish that I could teach every physician in the land a very simple method, which has proven so successful in my practice as to establish its value beyond all question. It is very simple and is as follows: In the first place, try at the very outset to assure your patient that you are not going to add to his torture, and confirm this in his mind by handling the tumor with the utmost gentleness. By this you will secure his co-operation instead of unconscious resistance. It is better to place your patient upon an ordinary kitchen table, the legs at one end being elevated six to ten inches, than to make attempts at reduction with the patient in bed. Having the hips elevated and the head and shoulders low, press the abdominal contents well up toward the chest. Now carefully work the fingers of one hand around the neck of the tumor where it issues from the abdomen, the design being to get it away from this point as much as possible. Hold the bulk of the tumor in the palm of the hand, if possible, and instead of trying to push it back into the abdomen, try to draw it farther down. If the case is one of inguinal hernia, grasp the canal and its contents gently, but firmly, between the thumb and fingers of the disengaged hand, and while making traction and compression with the hand that is holding the tumor, manipulate the canal by a "kneading" motion with the fingers of

the other. This must all be done without adding materially to the patient's pain, and will succeed, in many instances, where more violent means have failed.

It is the design of this method to lengthen out, by traction, the mass that is blockading the canal, and then, by compression, to empty the engorged blood-vessels and displace imprisoned gases, thus favoring the final reduction of the entire mass. This is further aided by the action of the fingers over the canal, which tend to work the bowel free at the point of constriction. In enormous scrotal hernias that cannot be grasped by the hand, the pure rubber bandage may be brought to our aid in making compression.

In femoral hernia, where we have a very short canal to act upon, I have modified the method in the following particulars: The hand for traction and compression is used as before described, the tumor being drawn in a line at right angles with, or directly away from, the leg. With the fingers of the other hand the neck of the tumor is "kneaded," and, in addition, from time to time the abdominal wall immediately above the hernial opening is gently, but firmly, pressed deeply into the pelvic cavity by the ends of the fingers carried just over the brim of the pubes. This pressure deep into the pelvic cavity displaces the viscera in the immediate vicinity of the internal hernial opening, and doubtless causes some traction upon the bowel from within.

While this, like every other non-operative method, will fail in some cases, I am convinced that its careful use would save many operations and save many lives, because it could be carried out by men who would not or could not operate.

Taxis under an anæsthetic is, like the use of opiates, an element of real danger to the patient. Anæsthesia aids only to the extent of doing away with unconscious resistance on the part of the patient, and of allowing the physician to use an amount of force that could not otherwise be tolerated. In the first instance it is of unquestionable value; in the latter a far greater danger than can be appreciated by the inexperienced. Anæsthetics should be used only when everything is ready for the operation, and then the method of applying taxis already spoken of should be adopted, and the same gentleness should be exercised as when the patient is in a conscious state. The attempt having failed, the operation should be proceeded with at once. There is far more danger in rude and

violent handling of a strangulated hernia than there is in the operation for its relief. The anæsthetic should be given with the understanding that an attempt is to be made to reduce the tumor under its effects, but that, if this fail, relief will be afforded by operative means before consciousness is regained. This removes, to a great extent, from the mind of the patient the dread of the operation, for there is the hope that it may be avoided, and if it is performed he is rejoiced, when again conscious, to find himself relieved and that it is all over.

It is unfortunate that medical men have been taught that operations for strangulated hernia are among the most difficult and dangerous in surgery. It is far from the truth, if the operation is done promptly after the case is first seen, and this impression is derived from those cases which have become complicated and difficult solely as the result of delay.

In inguinal hernias the constricting band will, in the majority of instances, be found at the external abdominal ring. To reach it, only one small, superficial artery is divided, so small that in many cases ligation is not necessary, even though advisable. In femoral hernias the constriction is almost always at the edge of Gimbernat's ligament, and here, again, we have only to cut through the skin and superficial fascia.

In the older writings the question is discussed as to just what symptom should be taken as evidence that operative interference should be no longer delayed. It is pretty uniformly conceded, even by these writers, that stercoraceous vomiting should be the limit of delay. I am confident that those who have had an equally large experience with these cases will join me in saying that he who *waits* for this symptom at the present day will not only be sure to have an unnecessarily large death-rate, but will show himself unworthy of the trust placed in him by the patient.

In well-marked acute strangulation the necessity for an early operation is imperative. It is safer for an unskilled physician to undertake the operation than to delay twelve, twenty-four, or thirty-six hours for the most skillful operator. Delay means death.

To those who have never done the operation the following considerations will be pertinent :

1. Instruments necessary. 2. Asepsis and antisepsis : (*a*) of the operator and assistants; (*b*) of the patient; (*c*) of instruments,

3. The incision. 4. Opening of sac. 5. Treatment of intestine. 6. Treatment of omentum. 7. Completion of operation. Radical cure.

The instruments which are absolutely necessary for the performance of this operation may be very few and simple in character; scalpel and artery clamps could be made to serve every purpose, if others could not be obtained. For greater convenience, however, the following should be at hand: Scalpel, half-dozen artery clamps, two retractors, a grooved director, anatomical or thumb forceps, scissors, and perhaps a Cooper's hernia knife; in addition to these, needles, material for ligatures and sutures, sponges, iodoform-collodion, iodoform gauze, bichloride gauze, and bandages

If the operation is done early, you have to deal with parts in an aseptic condition, and it should be your greatest care, from first to last, not to introduce septic matter into the tissues. This process means beginning with the operator and finishing with the patient, and putting everything and every person directly connected with the operation in strictly aseptic condition. The operator's and assistants' nails (most convenient carriers of poison) should be trimmed closely and the hands scrubbed thoroughly, after which they should be immersed in a solution of bichloride. The parts in the field of the operation should be shaved, scrubbed and washed with bichloride solution. If the instruments are boiled for twenty minutes shortly before the operation, it matters little whether you keep them in a 1 : 20 solution of carbolic acid or boiled water during their use. My preference has been for the carbolic solution. It is better that your sponges be new, the expense being only a trifle for the three or four needed. Having made yourself, your patient and surroundings absolutely clean, there is no need of using antiseptic solutions in a wound where no septic matter exists, and their use only delays subsequent healing, and it is advised that only *boiled* water be used for irrigation. In most instances little or no irrigation is required.

In inguinal and femoral hernias of moderate size the primary incision should be over the bulk of the tumor, i. e., in the first instance from a point directly over the external ring downward, and in the latter from a point over the lower border of Poupart's ligament downward, the object always being to reach the neck of the tumor as quickly as possible. In umbilical hernias of enormous size it will be found easier to approach the neck of the tumor from

an incision made to one side of the median line. In the centre of such hernias the tissues are thin, and the sac, skin, and frequently intestine, are so closely united as to make it almost impossible to incise one without serious damage to the other.

When you have exposed the hernial sac it serves as a guide to the opening through which it protrudes, and at this point will frequently be found the constriction. The question now arises whether or not you should cut this band and reduce the contents of the sac without seeing them. In former times the question was discussed freely as to which was the safer plan, to open the sac or not; but at the present time it would seem that there should be no question on this point. Opening of the sac does not materially increase the risks of the operation, if you are a *clean* operator, and it does enable you to know whether its contents are in a fit condition to return to the abdominal cavity. After strangulation of only three hours' duration I have seen the bowel so black that I should not have dared return it to the abdomen without first subjecting it to treatment to aid the recovery of its circulation. When the intestine is found in this condition, that is, dark purple or chocolate color, without actual perforation, I know of nothing better than the application of clean towels wrung out of water as hot as can be tolerated by the hand, and changed every few moments. I have delayed the operation as long as half an hour to carry out this measure, and with the most gratifying results. If sloughing and perforation already exist, the inexperienced operator will do better to fasten the gut in the wound, forming an artificial anus, than to attempt intestinal repair. Pieces of omentum found adherent within the sac, or that appear in bad condition, should be properly ligated and cut off. The principal danger attending the removal of masses of omentum has resulted from hœmorrhage occurring after the operation has been completed. This has been caused either by including large masses of omental tissue within a single ligature, or the too early softening of catgut used for tying it off. This danger can be avoided, first, by spreading out the omentum so that each vessel can be seen and tied separately, and, second, by using aseptic silk instead of catgut.

The final question for our consideration is how to so complete the operation as to secure for our patient the best possible chance of a

permanent cure. In order to do this we must place the inguinal canal in as nearly a normal condition as possible.

It is not possible at this time to enter into the consideration of curative operations, their merits and their faults. Since 1887 I have followed the method of Barker, of London, and, while it is by no means all that might be desired, it is in my opinion the best operation at our command. Briefly, it consists in cutting off the sac as near the internal ring as possible, and then stitching up the canal with heavy braided silk. These sutures are left permanently in situ, and union of the wound by first intention is secured by accurate approximation of the skin and sealing it up with iodoform-collodion. The first dressings are left on for ten or twelve days.

I have had no trouble in using silk for all parts of the operation since I have prepared it myself. This is done by boiling for twenty minutes in a carbolic solution, and then keeping it in alcohol until it is required for use.

Loops of bowel that have been subjected to pressure for some hours are, even after returned to the abdomen, liable to a partial paralysis. For this and other reasons it is deemed best to give a mild saline cathartic on the second day following operations for strangulated hernia. This prevents impaction of fæces at the point of injury, and it relieves the engorged blood-vessels as well. The use of all opiates is discouraged, unless urgently demanded to relieve pain.—*Post-Graduate.*

BICHROMATE OF POTASSIUM AS AN EXPECTORANT.

By Jos. H. Hunt, M D. (Read before the Medical Society of the County of Kings, N. Y., April 19, 1892.)

It was during the winter of 1875 that I was in attendance upon a child two years of age, who was ill with bronchitis. Though seventeen years have elapsed I well remember the child as it lay then, breathing at the rate of 90 respirations per minute, pulse too rapid and feeble for me to count it, countenance cyanosed, veins of forehead and neck prominent and turgid, and a cool moisture covering the little sufferer's body. The child was suffocating and seemed to me to be dying. I called for consultation, and my friend,

Dr. Alexander Hutchins, responded. He produced from his pocket a powder, telling me that it contained 1 grain of the bichromate of potassium, triturated with 9 grains of sugar of milk, directing me to place it in a tumbler with 20 teaspoonfuls of water, and give of the solution a teaspoonful to the child every ten minutes till the symptoms were modified. That was in the evening, and in less than two hours the symptoms of suffocation were so much relieved that I was able to leave the child for the night with directions that the medication should be kept up at one hour intervals. The change in the condition of the child when I visited it the next morning was surprising. The respirations had dropped to less than 40; the child had been able to sleep and take some nourishment; the cough, which before was dry and barking, had become looser, and the lung, which the night before hardly admitted any air, was now filled with loose moist bronchial râles. The aspect of the case was changed from that of a child evidently dying from what we then called capillary bronchitis to a plain case of bronchitis, which went on to successful recovery.

This, gentlemen, was my first introduction to a drug which has ever since formed a part of my armamentarium. For sixteen winters I have used bichromate of potassium, a substance which we are apt to think of on account of its chemical properties; or, if included at all in our materia medica, it is an escharotic, a rather mild substitute for the more active chromic acid. Medical literature contains far more written upon its poisonous than on its remedial qualities, indeed, except for occasional allusions to its use in diphtheria, in the treatment of which one author says it corresponds in its action in many respects with bromine, we have been able to find but little in English literature, though considerable has been written by the Germans and French. The only article of importance I have been able to find is that of Alfred Drysdale, M.B., of Cannes, France, entitled, "An Attempt to Ascertain the Sphere of Action of Bichromate of Potassium," published in the *Medical Press and Circular*, London, 1886, which I advise those of you who are interested in the subject to read. He reviews about all that has been written on the subject before him, including the experiments of the Austrian Proving Society, which made extensive experiments with bichromate of potassium on animals in 1844, some of the members,

in their enthusiasm, even going so far as to record experiences where they had studied its effect upon their own persons.

The conclusions reached by Dr. Drysdale are that "bichromate of potassium has a specific action or elective affinity for certain organs and tissues," and that "its action is most marked on the mucous membranes of the respiratory passages, nose, eyes and mouth, and on that of the stomach and intestines; on the skin, liver and kidneys, and lastly, the fibrous tissues, periosteum and bone. No specific relation can be traced with the serous membranes, with the genital organs or the cerebro-spinal system. Its sphere of usefulness is, therefore, among disorders of the organs and tissues above enumerated, viz: mucous membranes of the respiratory passages and alimentary canal, the liver, kidneys, skin and bones."

My experience with the remedy has been confined to catarrhal conditions of the respiratory mucous tract. I have not kept histories of cases, and can, therefore, only generalize and say that for the past fifteen years bichromate of potassium has been my principal agent in treating this class of diseases in infants and young children. In medicinal doses it is practically tasteless, and in my hands more efficacious than the nauseous chloride of ammonium which most of us use in about the class of cases in which I use the bichromate. The experience in my first case has been more than once repeated, though it took a second case almost as bad as the previous one, to which I again called Dr. Hutchins in consultation, with an equally gratifying result, to give me the confidence in its utility which I now have.

I like the old term alterative. I know it has been discarded by modern therapeutists as non-scientific; but while it may be so, it expresses a something which we all intuitively understand, and, clinging to the old word, I would describe the therapeutic action of bichromate of potassium in these cases as an alterative expectorant which a slight increase in the dose makes more stimulating and may become an irritant emetic.

You all know the salt, in its crystalized form of garnet-red prisms of resplendent lustre, which is soluble in twelve parts of water at ordinary temperature and in equal parts of boiling water. It is best administered internally in the form of an aqueous solution, but this is liable to decomposition if kept too long. I have for years kept it in the form of a trituration of one part with nine with sugar

of milk, which I dissolve in water at the bedside. Lately some of our tablet-makers have been putting up tablets of this triturate, each tablet containing 1-50 grain, which is a minimum dose for a child one year old. It is soluble in alcohol and is rapidly decomposed in glycerine. I find it taken and borne readily by the youngest infant, unless given within a few minutes of feeding with milk, with which it seems to be incompatible, so that when the administration of the medicine is at very short intervals, milk-feeding must be, for the time, suspended. I am accustomed to give it to a child one year old in 1-20 grain doses, at first at frequent intervals, when the symptoms of suffocation are distressing or the breathing very rapid; I administer a dose every fifteen or thirty minutes, until I see some amelioration of the symptoms, and then diminish in frequency to one hour intervals. If the interval is prolonged more than one hour the effect seems to die away.

Drysdale says that not more than ¼ grain should be given per day, but I have exceeded that amount without bad effects. I am accustomed to instruct the attendants to diminish the dose if it acts as an emetic, but not to diminish the frequency of its administration. When it is rejected by the stomach it is without nausea or after-irritating effect. Trituration seems to make it less irritating to the stomach. I find that when I write a prescription for one grain of bichromate of potassium to be dissolved in 20 drachms of water, the attendants will tell me that it seems to irritate the stomach and is apt to be rejected, whereas, if I give 10 grains of the powdered triturate I have described or a corresponding number of the 1-50 grain tablets, to be dissolved in 20 spoonfuls of water, spoonful doses are almost never rejected. In many of my families it has become the household remedy. The mother keeps some of the powdered triturate in the house, and when the baby has a little coryza or influenza, or, as she expresses it, "catches cold," she prepares some of the solution and administers it instead of the traditional goose-grease and molasses, which some of our early childhood days recall with loathing.

It is a frequent occurrence for me to get letters from former patients residing at distant out-of-town points, begging me to send them some of that powder which, when dissolved in water, made that beautiful yellow solution which I used to give the baby.—*Brooklyn Medical Journal.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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GEO. GILLETT THOMAS, M.D., " } Editors.

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THE STATE BOARD OF HEALTH.

The death of Dr. Thomas F. Wood made vacant the office of Secretary of this useful body. The peculiar character of the work of such organizations makes its Secretary its most important office, and we congratulate the friends of the Board and of efficient sanitary work that Dr. R H. Lewis, of Raleigh, has been elected to fill the vacancy—predicting for his career one of energy and great usefulness and in keeping with his reputation. But the Secretary and the body of workers to which he is attached needs the hearty coöperation of the medical profession and the support of the whole people of the State.

There is a great lack of knowledge in all matters connected with public health and a negligence in this lack of knowledge and of care the individual shows in protecting himself and his family by failing to provide healthful surroundings for himself and them. Where there is sickness due to filth accumulations, or the spread of epidemic disease due to like causes, it is the duty and it will be the work of the Board of Health to advise for the arrest of the disease by the intelligent destruction of the cause of sickness. There is a great field for the labor of the Board, and there is an honest desire among its members to enter and do the work set apart for them. The idea that these gentlemen are busying themselves only in collecting vital statistics, or having jails or poor houses looked after, has prevailed long enough. There is and can be no need for aid from outside the State to investigate an outbreak of disease and to provide a remedy. The work can be done by these State officials, and a prompt application for help or information will always receive a prompt reply. Just now, in view of the threatened invasion of this country by cholera, there is a duty before the local health officers and the physicians at large, which is plain and simple. The history of cholera since 1832 makes it quite certain that next spring will be the period of greatest danger to the States, especially to those along the seaboard, unless there should be such energetic measures adopted in Europe during the winter months as will stamp out the poison. To prepare their people for such an emergency as the presence of one or more cases of the disease in a community, whether a large or small one, is the work that lies clearly before the members of the profession. And the first step in the direction of prevention is cleanliness—in the streets and on private lots. Herein lies the secret of escape. A clean town, with good drinking water, need not fear the spread of the disease if the people will be guided by the sound advice of the physicians. It is not Utopian to expect or believe that such a desirable state of affairs can be accomplished. It means thrift and life to business, as it means freedom from epidemics and sickness, which, if they come, decrease the tax returns and throw a damper on commercial enterprise that many months will not cure. If the present disposition to panic which the mention of cholera arouses, shall end in a great sanitary revival led by the Board of Health and executed carefully and conscientiously in every home in the State and in every town

and hamlet, the dread disease which has worked such sad havoc in the cities and villages of Europe will find no resting place here, and the fear of its invasion will become a great beneficence in the lessons the fear of spread ought to, and will, teach our people. If there should be any further danger the Board of Health will no doubt issue bulletins containing such directions for the care of the person and the premises as will be easily understood and carried out.

In this same line there is now a study for the Board, which it seems not untimely to mention. A goodly number of towns in the State have for years had more or less typhoid fever prevalent in them. The annual loss of life and the loss of time to individuals, and therefore to the community in which they live, are serious subjects for the sanitarian. There exists a wide-spread apathy in this direction. The inhabitants of these towns are generally impressed with the belief that the atmosphere in which they live is pure and has in it the necessary qualities to overcome disease. It is a burdensome responsibility to attack the character of the water which people drink. One might as well attempt to interfere with the precious legends of localities as to say that a doubt of the purity of the drinking water could exist. But the fact remains that the disease is present, that sanitary policing is unheard of, or recklessly neglected, and a revival of proper authority placed in the hands of well-informed and zealous men will, we believe, be of incalculable benefit to these localities.

THE EFFICACY OF QUARANTINE.

In a recent address, Mr. Ernest Hart said that "quarantine had been defined as an elaborate system of leakiness; impossible if it were complete, because implying isolation and arrest of intercourse; useless and dangerous if incomplete, because inviting a false reliance and offering a false security. Medical inspection, with the powers of detention, was a more real preventive, and more easily made effective." He asserted that the importation of cholera was inevitable under the existing circumstances. The average of the incu-

bation period being put at two to five days, it was unavoidable that many should pass through their ports in apparent health, who, after a few days, developed serious or fatal cholera.

The *Lancet*, in criticising the action of the panic-stricken mob in attempting to prevent the landing of the passengers from quarantined vessels at Fire Island, says: "It is for American experts to advise their Government and countrymen as to what are the measures of prevention against cholera which are best adapted, under their own circumstances of public health, commerce, etc., to cope with the disease. But we are none the less convinced that the more a nation is educated to rely on quarantine, the more it becomes demoralized from a public health point of view. In the eastern hemisphere the quarantining nations are the backward nations, whose populations have suffered most from preventable diseases, including cholera; and both the folly of their practices and the amount of their preventable disease are largely increased by the extent to which quarantine restrictions have been held up to their people as things to be trusted in. . . . In this country we have been trying hard to educate the nation to a higher standard—namely, to understand that quarantine cannot be trusted to keep out cholera, but that purity of the water consumed, of the air breathed, and of the soil can and do prevent the extension of the disease."

As we understand the English system, it is to require the address of all persons coming into the country from infected ports and keep them under surveillance, detaining those who can give no definite address, and to inspect and disinfect the ships. It is claimed that the establishment of an efficient quarantine for Great Britain would be impossible—that the immense travel btween that country and the northeastern ports of France, for instance, would put quarantine entirely out of the question as regards those ports. So far the system adopted by our English cousins has proven itself entirely satisfactory to them, and with reason, evidently, as there have occurred only about twenty-four cases of cholera in Great Britain, with only three in London.

The inexcusable action of the mob in preventing the landing of the passengers from the quarantined steamship Normannia, on Fire Island, in New York harbor, has called forth the severe criticism of the medical press of England, and very justly so, for such action,

so inhuman and senseless, is worthy of severest censure, but the cause of that burst of hot-headed resistance can hardly be charged to the system of quarantine.

There are some points, however, on which our friends across the water do not seem to be informed. From their criticisms it would be inferred that this country is depending entirely on the quarantine boards to prevent the occurrence of epidemics, and that we are neglecting the equally important step of putting our cities and towns in such condition that the chances of the spread of the disease from cases that do gain an entrance shall be reduced to the minimum. On the contrary, almost every Board of Health and medical journal in the States, to say nothing of the communications from medical men in the countless dailies of the country, have been urging upon the people that their greatest safety is in pure air, pure water and clean soil. The fact that only six cases of cholera have occurred in New York, with upwards of thirty great steamships, with thousands of immigrants from infected ports and many cases of the disease aboard, lying at her gates anxious to discharge their burdens, is proof positive that the quarantine system presents a very formidable barrier to the entrance of epidemics into our country. And that there was no spread of the disease from the six cases that did occur is unquestionable evidence that the health authorities have not been idle in the matter of securing a sanitary condition of the city.

In a country where immigration is permitted to such an enormous extent as it is in the United States, and where the immigrants scatter immediately over such a wide extent of territory, medical surveillance would be as impossible as quarantine would be in England against France. The quarantine system is expensive, enormously so if the stations are maintained so as always to be ready for any emergency; but any expense would be insignificant compared with the results of a wide-spread epidemic

That it was a terrible hardship to the non-infected passengers on the steamers at the New York quarantine to be detained for days on board the infected ships, being subjected to the risk of contracting the disease, cannot be questioned, and that there is blame somewhere is equally true; but that unfortunate condition cannot justly be considered as an argument against the system, but rather as a serious charge against somebody for not providing in advance one

of the very foremost requisites for a well equipped station. It is to be said, however, that the long freedom from danger begot a false security, and when Dr. Jenkins came face to face with the difficulties that the unusual rush of immigrants presented, his cool determination and masterly management must commend him as the foremost quarantine officer in the country.

Our first duty would seem to be to keep out from our midst, as much as possible, all diseases that might give rise to an epidemic, but also, in view of the fact that it is, in the present state of our knowledge, impossible to prevent some cases finding a way in, to have our cities in such sanitary condition that the chances of the spread of the disease will be so reduced as to enable the health authorities to control them. While the health boards might be able to satisfactorily manage a dozen cases, if fifty cases were scattered about, it might prove such a tax on the board that some necessary precautions would be neglected.

THE SECOND ANNUAL REPORT OF THE MIDWIFERY DISPENSARY, New York City, exhibits a remarkable advance in the progress of the institution during the year. The number of women treated has increased from 199 in 1890 to 955 in 1891. The average number of days of treatment was 8.09 at an average cost of $6.42 per patient. In nativity nearly 60 per cent. were Russian. Of the 955, 942 were married; the youngest was 16 years old, and the eldest 47; 220 were primiparæ, one was XV-para, and as many as 313 were V-para or more. As regards presentations, the vertex presented once in 1.07 cases, breech once in 20.10, shoulder once in 63.66, and face once in 382.00. Of the 712 vertex presentations the child was still-born in 19 cases; of 24 breech presentations, 14 were still-born; of 12 shoulder presentations, 6 were still-born; of 2 face presentations, 1 was still-born. Of 874 recorded cases, 462 were males, 412 females. Placenta presentations occurred once in 127.43 cases; eclampsia four times, or once in 191 cases, urine being examined in only one case, in which it was normal on the day of delivery. Albumin was found in 14 cases, but these exhibited no further symptoms of eclampsia. Twins occurred once in 50.26 cases. Forceps used low in 8 cases, high in 10 cases, to after-coming head in 2 cases. External version performed once; internal podalic 18 times. There were 10 fatal cases—one in 95.5. Causes of death—septicæmia, 5; convulsions, 1; pneumonia, 1; shoulder presentations, one being also placenta previa, 2; hemorrhage from cervix in after-coming head, 1.

REVIEWS AND BOOK NOTICES.

GEOGRAPHICAL PATHOLOGY: An Inquiry into the Geographical Distribution of Infective and Climatic Diseases. By ANDREW DAVIDSON, M D., F.R.C.P., Ed. In two Royal Octavo volumes. Cloth. New York: D. Appleton & Co., 1892.

This work, of a thousand pages, is divided into two volumes, the pagination, however, continuing uninterruptedly through the two, the second volume containing the index for both.

Under the term infective diseases the author includes miasmatic diseases, such as malaria; miasmatic-contagious maladies, such as cholera; and the contagious diseases proper, such as scarlet fever. Climatic diseases include, amongst others, croup, bronchitis, pneumonia and rheumatism, which are either owing to, or are materially influenced by, meteorological conditions.

The author follows the natural division of the world into continents, these into existing kingdoms and states, while the states are grouped into divisions from north to south; the first volume being devoted to Europe, Northern and Western Asia, India, Ceylon and Burmah, and the second to Southwestern Asia, Indian Archipelago, Australia and Polynesia, Africa and America. He has drawn upon the official returns of the statistical departments for his information where these have been attainable.

The geography, climatology, vital statistics and pathology of each country is given briefly, and the different diseases are treated of in detail under the pathology of the countries in which each occupies a conspicuous place. The chapter devoted to the United States occupies about 75 pages. It is rather a pity that the census returns for 1890 were not accessible in treating of the statistics, both vital and meteorological, in the United States, as they would give more satisfactory statements than those for the year 1880, which the author has taken as his authority. Vital statistics in the States are far from satisfactory now, and they must have been still more so twelve years since, especially in the Southern States. This chapter is rich in tables and charts illustrating the influence of temperature, rain-fall and altitude on the various diseases; also the influence of the different diseases on the three classes of people in the United States—whites, negroes and Indians. Malarial fever, as

influenced by rain-fall, inundations, marshes, disturbance of the soil, etc., is treated of in various sections, but we fail to notice any reference to drinking water in its influence on this malady. It cannot be doubted since Laveran's discovery of a specific germ, and with the experience of physicians practicing in malarious sections, that drinking water occupies an important place as a means of entrance into the body by this common disease.

The work is very interesting and instructive and should be acces sible to all who desire to familiarize themselves with the influence of climate and country on diseases, and to those whose business it is to study the best methods of prevention.

TREATISE ON DISEASES OF WOMEN: For Use of Students and Practitioners. By ALEXANDER J. C. SKENE, M.D Second edition, revised and enlarged. Illustrated by 207 engravings and 9 chromo-lithographs. New York: D. Appleton & Co.

This work hardly needs a notice beyond the announcement that its author has revised and added to the previous editions. Dr. Skene has long been recognized as a conservative as well as an able teacher, and this book is possessed of the value of being the compendium chiefly of his own work and experience.

Those of our readers who were so fortunate as to carefully study his opinions in the first editions will find that he has added only such matter to the latest edition as has been proven and accepted as facts.

The illustrations are as numerous as in the other editions, and we regret that the obscurities that marred the first books have not been entirely removed. The text is clear enough, if one does not attempt to verify it by the illustrations, in some instances. This is a minor fault, and the book can stand on its great merits, having but few equals.

TREATISE ON GYNÆCOLOGY, MEDICAL AND SURGICAL. By S. POZZI, M.D., Professeur Agrégé à là Faculte de Médicine, Paris, etc. Translated from the French edition under supervision of, and with additions by, BROOKS H. WELLS, M.D. Two volumes. Illustrated by 479 wood engravings and 15 full page plates in color. New York: William Wood & Co.

The work of Dr. Pozzi has received the cordial endorsement of the leading men in the specialty to which it is devoted. It bears

the stamp of a close student's work and exhibits the wide range of reading of the author. There is no narrowness in his ideas, and, while he is fully equipped himself to express opinions, justified by personal experience, he has given space to the opinions of all the men whose writings on gynæcology have become noted or accepted as standards. It covers the field with more fulness than any book of its kind that has been presented to the profession, and its text and very numerous illustrations, many of which are entirely new to American readers, render the work one of the most valuable additions to the long list of books now offered the student of the diseases of women. Its value is enhanced by the editorship of Dr. Wells, and his dictum as a critic and as an expositor of the latest accepted doctrines in gynæcology in the United States, will materially aid the reader in his search for authentic statements and safe guides to practice.

A Practical Treatise on Diseases of the Skin. By John V. Shoemaker, A.M., M.D. Second edition, revised and enlarged, with chromogravure plates and other illustrations. New York: D. Applelon & Co., 1892.

The first edition of this valuable work made its appearance only in 1890, and was a welcome addition to the treatises on Dermatology which had already been presented to the profession. In the second edition the author has incorporated the various new points relative to etiology, pathology and treatment which have been advanced during the past two years, the number of pages having been increased from 633 to 878, nearly 50 per cent., the section on Syphilis alone being increased by about twenty pages, mostly devoted to treatment. The administration of mercury by hypodermatic injection has received special attention, reference being made to the various preparations recommended by recent experimenters. The author, however, after using all of these, prefers the solution of the corrosive chloride in distilled water, as being the most readily prepared, and just as effective as any that have been suggested. He has employed this preparation in 554 cases, making 5,295 injections, and in no instance have abscesses resulted. He employs the remedy in the strength of gr. jv–℥ i, beginning with a daily injection of five minims and increasing minim by minim every second or third day until the constitutional effects of the drug are

obtained. The injection should be into the deep muscular or subcutaneous tissues, where absorption will take place rapidly.

The section devoted to Leprosy has been enlarged and the conflicting views as to its etiology and contagiousness have been patiently considered, the balance of testimony being greatly in favor of its contagious nature. Under the head of heredity, as a factor in the transmission of the disease, the author says: "When the disease is confined to the father, and more especially if it has reached an advanced stage, it seems credible that the seminal fluid or the spermatozoa should impress a morbid inheritance upon the embryo corresponding to what takes place when the infant inherits syphylis from the father"; but, in speaking of congenital syphilis, he says: "But the weight of authority is in favor of the opinion that infection can only occur through the medium of the maternal circulation."

The work is liberally illustrated with chromogravures and wood-cuts, the colored plates of the first edition having been replaced by entirely new ones, more numerous and not of a less degree of excellence. The "Formulary" for internal and local treatment has been enlarged to nearly twice the size in the first edition, and is very conveniently arranged for reference.

AN AMERICAN TEXT-BOOK OF SURGERY: For Practitioners and Students. Edited by WILLIAM W. KEEN, M.D., LL.D., and J. WILLIAM WHITE, M.D., Ph.D. Profusely illustrated. Philadelphia: W. B. Saunders. Sold by subscription only. Cloth, $7.00; Sheep, $8.00; half Russia, $9.00, net.

The accomplished editors of this book have called to their aid some of the most distinguished surgeons in the United States, as Drs. Charles H. Burnett, Nancred, Conner, Roswell Park, Senn, J. Collins Warren, and others—and, including themselves, have produced an encyclopedic text-book—each author devoting himself to the subject, but by mutual consent having his views criticized and amended by the rest of the corps before the book went to press. We note that the work begins with an exhaustive and yet concise chapter on Surgical Bacteriology, which is a new addition to a surgical work, but exceedingly useful in the present phase of aseptic and antiseptic surgery. The illustrations are made from studies of the author of the article and amply cover the field for the student and practitioner seeking knowledge in this line. Then

follow full chapters on Inflammation, Process of Repair, Traumatic Fevers, Suppuration and Abscess, and the subjects relegated to the head of general surgery.

The student will find, in Book Third, the chapters on Diseases and Injuries of the Head, Surgery of the Digestive Tract and Diseases and Injuries of the Abdomen of unusual interest and worth. The experience of Dr. Keen would naturally lead one to expect the former of these to be exhaustive, and no disappointment awaits the eager reader. We notice in the article on hernia that not much encouragement is given to attempts to cure this deformity by the radical operation, although all the methods are set forth in detail.

The chapters on the Surgery of the Male and Female Genito-Urinary Organs are quite as complete as could be expected, and better than is the rule in works on general surgery.

The other subjects are exhaustively treated, and there is throughout the book a completeness, coupled with conciseness, that makes the book a valuable edition. The painstaking criticism to which each article has already been subjected, faithfully promises the excellent work that is offered the profession, and the illustrations are both good and instructive. We note the number of original wood-cuts, and the plates are phototype copies of cases and morbid specimens taken from the practice of the authors of the different chapters. In many respects the work is a new departure in this direction, and will be welcomed by students of surgery and no doubt become a standard tex-book.

PHYSICIAN'S LEISURE LIBRARY.—GEO. S. DAVIS, Publisher, Detroit, Mich. Issued Monthly. Price $2.50 a Year or 25 cents for single numbers.

Cerebral Meningitis; Its History, Diagnosis, Prognosis and Treatment. By MARTIN W. BARR, M.D.

Uses of Water in Modern Medicine. By SIMON BARUCH, M.D. In two volumes.

Contributions of Physicians to English and American Literature. By ROBERT C. KENNER, A.M., M.D.

STUDENT'S QUIZ SERIES. LEA BROTHERS & Co., Philadelphia.

Genito-Urinary and Venereal Diseases. A Manual for Students and Practitioners. By CHARLES H. CHETWOOD, M.D. Price $1.00. Cloth. Pages 178. Illustrated.

Obstetrics. A Manual for Students and Practitioners. By CHAS. W. HAYT, M.D. Price $1.00. Cloth. Pages 190. Illustrated.

CURRENT LITERATURE.

CONCERNING THE ETIOLOGY OF MALARIA.

Dr. Ludwig Kamen (*Beitrœge zur pathologischen Anatomie und Pathologie*, No. 3, 1892), observed the following changes in Laveran's hæmatozoon during malarial chills. In a case of the quartan type, the following observations were made upon the blood:

First day. A few small endoglobular parasites having a few peripheral pigment granules were seen in the red corpuscles.

Second day. Endoglobular plasmodia occupying the major part of the corpuscles. Besides these there are cells similar to those of the first day, but more numerous.

Third day. Completely developed organisms occupying the entire blood cell except a narrow peripheral zone. The pigment granules are scattered uniformly throughout the protoplasm.

During the chill. The pigment is collected centrally in a round mass, or at times in the form of a minute radial band; marked differentiation of protoplasm. In addition individuals not yet fully developed.

During the fever. Division of the parent cell into daughter cells and mature daughter cells, with disintegration of the remaining portion of the older cells.

During the sweat. Pigment discs, besides certain misshapen protoplasmic masses, which apparently are dead plasmodia.

The new generation does not precede the fever, but the two occur simultaneously. At the end of the vegetative stage the fever appears. The time of apyrexia corresponds to the vegetative period, and that of pyrexia to the proliferation period. Every sporulation means another chill. The time intervening depends upon the time required to pass from one phase to another.

In discussing the probability of different organisms giving rise to the various forms of malaria, this division is made:

Hæmamamœba malariæ—quartan, hæmamamœba vivax—tertian, hæmamamœba præcox—quotidian and the pernicious and continued fevers—hæmamamœba immaculata, colorless variety, similar to the foregoing in its pathology, and lastly, the Laverania malariæ, as the cause of chronic malaria.—*North American Practitioner.*

SANITARY PROGRESS IN EGYPT.

In the Valley of the Nile to-day there are three Egypts. There are the sub-stratum dominions of the Egypt Exploration Fund—an ancient land of sphinx, pyramid, mummy and scarab, ruled over in this century by a dynasty of archæologists. Superimposed is the Egypt of Mohammed, with its tapering minarets, swelling domes and dusky bazaars, and all the torpifying influences focalized at Cairo in the teachings of the great university mosque of El-Azhar, with its 10,000 students swaying and muttering over the Koran. Above this, in turn, is the Egypt of the English occupation. The English soldier kicks football in the yard of the barracks where Arabi hatched his rebellion, and the English tourist plays polo under the shadow of the great pyramid, to the regimental music of the Royal Irish Rifles. England is known to be the greatest of colonizers and the most successful governor of Orientals, but the reforms she has wrought in Egypt during the past nine years are simply astounding.

Probably the most serious obstacles have been encountered by the English sanitary officers. They have had to combat the prejudices of an ignorant, teeming population, which was ready to attribute every epidemic to the decrees of fate. The mosques, with their unsanitary latrines, and the cemeteries are all fruitful beds of disease, but as they are connected so intimately with the religious life of the people, it is difficult to remedy the existing evils without arousing fanatical antagonism. Something, however, has been accomplished, and in Cairo old sewers that were nothing more than elongated cesspools, whose course could be traced by the cases of typhoid fever occurring in the adjacent houses, have been filled up, and in 1890 30,000 tons of sewage were removed from the city. Under the old regime, the hospitals were unclean pens to which a native would not go unless taken forcibly by the police. Now these establishments are clean, properly equipped, and have their dietary. Patients are no longer brought in chains, and leave when they like. At Kasr el-Aini, in Cairo, considerably over 100,000 cases were treated during 1890, and most of the provincial hospitals show proportionate returns. Moreover, dispensaries have been opened in thirteen towns; registration of births and deaths is required; vaccination is obligatory; a veterinary department has

been established to suppress cattle diseases; barbers and midwives, the former being practitioners of minor surgery, are required to submit to an examination to determine their proficiency; and, as a matter of special importance, there has been organized a system of flying hospitals for stamping out epidemics of small-pox, typhoid and typhus fever. It is true that all of these sanitary reforms are not yet perfect in their practical workings.—*Exchange.*

THE HÆMATEMESIS OF ANÆMIC YOUNG WOMEN.

While the statistics of gastric ulcer obtained from *post-mortem* records show the disease to be not very unequally divided between the two sexes, and while duodenal ulcer, which for practical purposes it is useless to divide from gastric ulcer, is more common in the male, hæmatemesis is far more frequent in young females, especially if we exclude those cases which are due to organic heart disease, to malignant disease, or to cirrhosis of the liver.

While far from denying the common occurrence of gas ulcer in young women, and the favoring influences of anæmia, I am convinced that in numerous instances the hæmorrhage arises from ruptured capillaries or small venules, and that no ulcer worthy of the name exists. The rupture of these small vessels is favored by anæmia in several ways. Partly by malnutrition leading to fatty degeneration of the vessel walls, partly by general rise of the vascular tension, which has now been shown beyond dispute to be common in some forms of anæmia, and last, but not least, by some backward pressure in the gastric venous circulation from the dilatation of the right side of the heart, inevitable in all severe cases of anæmia. In my experience it is the anæmia, the constipation, and the feeble heart which urgently require attention; and the successful treatment of these removes the malnutrition of the vessels, the high vascular tension and the venous remora, which we have laid down as the three most important causes of the hæmatemesis of young women.

It is, I think, easily possible to restrict the dietary too much in cases of hæmatemesis. But how are we to distinguish the cases where the blood is poured out from the surface of an ulcer from

those where no visible ulcer exists, though of course there must be a breach of continuity for hæmorrhage to arise? This is not in all cases possible. But the best guide to the dietetic treatment is the state of irritability of the stomach as indicated by pain and vomiting. Neither of these symptoms is a necessary consequence of gastric ulcer. They indicate either an inflamed ulcer or surrounding catarrh. If these two conditions are absent, a case of gastric ulcer may be treated safely and wisely on the same lines as one of hæmatemesis arising apart from ulcer. Hyper-acidity, which so greatly favors the production or continuance of ulceration in the stomach, is generally indicated by pain coming on from half an hour to an hour or longer after food. It can be readily determined by testing the contents of the stomach removed by the stomach tube.

If hyperacidity is properly met by the administration of alkalies, a moderate amount of light food in a fine state of division may safely be given, even in gastric ulcer. Rapid healing cannot be looked for in the absence of abundant nutrition.

Ulcers of the stomach artificially produced in dogs cannot be prevented from healing so long as the dogs remain in good health. Where hæmatemesis is due to anæmia, and the anæmic dilatation of the right side of the heart leading to over-filling and congestion of the veins of the stomach, it is not necessary to give digitalis so long as the patient is kept strictly in bed; but so soon as the patient is allowed to get up, unless the tricuspid murmur and the dilatation of the right ventricle have disappeared during the prolonged period of rest and the treatment by iron and aperients, digitalis should certainly be added, and will prove of great service.—HENRY HANDFORD, M.D., M.R.C.P., London, in *British Medical Journal.*

CREASOTE IN CONSUMPTIVES.

D. Burlureaux (*Mouvem. Ther.*) gives up all phthisical patients that bear creasote poorly. In general, he considers the fact of perceiving the taste of creasote, particularly after the administration of *small* doses, a sign of intolerance, but one of secondary value; the black coloration of the urine, if it occurs accidentally or after the use of large doses, does not indicate intolerance, it is held; but

if a *small* dose of creasote produces blackish or black urine, and this quite frequently, the physician ought to be extremely circumspect. The vertigo, the drunkenness, even the torpor, the extreme prostration, the impossibility of associating two ideas, do *not*, in the author's opinion, indicate intolerance; these symptoms are rare, and of short duration. Sweating, after the injection of creasote, does not indicate intolerance; but this symptom may accompany a febrile movement, and then two phenomena may present themselves, to wit: (1) the fever is perceptible only to the thermometer; there is no change in the general condition. It is advised, in such cases, to continue the treatment, and to diminish the doses, if necessary; tolerance will be established. Or (2) there are malaise, violent chills, celphalalgia, and a sensation of cold; the extremities are icy, respiration is slowed and the pulse is small—recalling the algid form of the pernicious fevers. The crisis lasts scarcely three-quarters of an hour, and is often followed by a comfortable condition. In such cases it is recommended to discontinue the creasote, or rather to considerably diminish the doses, and to administer the medicament only very tentatively.—*Merck's Bulletin.*

CUTANEOUS ABSORPTION OF MEDICINES MIXED WITH FATTY SUBSTANCES.

Guinard (*Lyons Med.*, 1891, Nos. 36–38) has made experiments on man and animals for the purpose of solving the much-vexed question of the absorption of medicaments by the skin. He finds that the unbroken skin prevents the passage of lanolin, vaseline, and lard and medicaments mixed with them, strychnine, iodine, morphia, etc. When iodine is found in the urine after cutaneous application, it has passed into the body by the respiratory organs. Exceptionally, when the medicaments are applied with the aid of steam or gas, a little may pass in by the sweat and sebaceous (?) glands, but only slowly, and in quantities so small that they cannot be measured. The passage is quickened by energetic rubbing of the skin, which widens the gland passages and empties them of their accumulated contents. Lanolin serves as little as fat and vaseline to render possible the absorption of medicaments through the skin. Absorption from wounds is differently effected by the three ointments. Vaseline renders it the most speedy. It is slower when lanolin and fats are used, and slowest when fat alone is employed. Vaseline is the substance which most promotes the absorption of a medicament into the circulation.—*Centralb. für klin. Med.*

CURRENT NOTES.

THE TWENTIETH ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION will be held in the City of Mexico, November 29th, 30th and December 1st and 2d, 1892. Dr. Irving A. Watson announces that a one-fare rate for the round trip has been assured by the railroads embraced in the Southern Passenger Association and in the Western Association. Tickets will be sold from November 20th to November 26th, inclusive, returning not later than December 31st, with a transit limit of fifteen days each way, thus giving ample opportunity to stop off at interesting points.

THE LOCAL COMMITTEE OF THE WORLD'S CONGRESS AUXILIARY OF THE DIVISION OF MEDICO-CLIMATOLOGY have issued an address stating the objects of this department, and setting forth the advantages of having at the Congress representatives from all parts of the world. Twenty-three topics for discussion have been suggested. The Chairman of the Committee is Dr. T. C. Duncan, and Dr. L. B. Hayman is the Secretary. All communications asking for information in regard to the Congress should be addressed to one of them at the "World's Congress Headquarters, Chicago, Illinois."

W. E. ST. LAWRENCE FINNEY, M B, in the *British Medical Journal*, states that he gets the good effects of morphia without the unpleasant sequelæ by using a hydrobromate of morphia, which he prepares by first rendering distinctly alkaline the liquor morph. hydrochlor. with a solution of ammonia, allowing time for complete precipitation, which takes place slowly. The precipitate being caught on filter paper is redissolved in dilute hydrobromic acid and water added to bring the volume to that of the liq. morph. hydro chlor. He got better results with the hydrobromate when prepared in this way than when morphine was directly dissolved in hydrobromic acid.

DIABETES FOLLOWING EXTIRPATION OF THE PANCREAS.—Minkowski has found that not only in dogs, but also in cats and pigs, a severe form of diabetes mellitus follows the entire extirpation of the pancreas. In birds this does not occur. In order further to show the special function of the pancreas, the author, after re-

moving the pancreas from the abdominal cavity, has transplanted pieces of it under the skin of the abdomen. By so doing the appearance of the diabetes is checked even after the entire removal of the pancreas from the abdomen, but if the transplanted pieces are subsequently removed, diabetes soon appears.—*Boston Medical and Surgical Journal.*

It is a noteworthy fact that not a single case of small-pox occurred during the year 1890 in the British Army. If this be not evidence of the protection afforded by re-vaccination against a malady once so common—and still disastrously fatal in armies where this precaution is not vigorously enforced—then logic and reason are mere accomplishments.—*Medical Review.*

Death of the Inventor of the Hypodermic Syringe.—The ordinary hypodermic syringe is known in France as the *seringue du Pravaz*, the instrument having been invented by Dr. Pravaz, of Lyons. The death of this gentleman is announced in this week's journals. He was the director of an orthopedic establishment in the silk capital, and was well known as a *medicin orthopediste.*—*Southern Practitioner, September*, 1892.

Dr. Joseph Price, of Philadelphia, has, in the June number of the *American Gynecological Journal*, a most interesting article—*The Porro Operation vs. Cæsarian Section.* He says: "It avoids many of the resultant dangers of Cæsarian section, not the least of these being the succulent uterus, with its incision. In the Porro operation the uterus is strangulated at once, thus precluding the danger of hemorrhage from uterine incision, and the intra-peritoneal treatment of the cut uterus, and also the great facility with which the operation may be performed are points in its favor. The advantages lie strongly in favor of the Porro from the further fact that there is a total absence of wounds in the peritoneal cavity, no involvement of important viscera; therefore less hemorrhage and less shock. In this operation there are other imminent dangers that the Porro avoids—adhesions with the intestines, which give rise to intestinal obstruction, adhesions between the uterus and abdominal incision and post-partum hemorrhage. There is always great uncertainty in the healing of the uterine incision.—*Times and Register.*

THE Fourth Annual Meeting of the Tri-State Medical Society of Georgia, Alabama and Tennessee will be held in the city of Chattanooga, Tenn, on the 25th, 26th and 27th of October, 1892. Any graduates of regular medical schools in the United States are invited to join the Society, there being no membership fee and the annual dues being $2.00. Thirty-one papers on various subjects are promised.

BLACK EYE.—There is nothing to compare with a tincture or a strong infusion of capsicum annuum, mixed with an equal bulk of mucilage or gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's-hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, the treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore or stiff neck.—*Medical Times.*

TURPENTINE EMULSION.—Harry Kahn, in the *Apothecary*, says: It is to be regretted that a work which has the force of authority should contain a formula which, as admitted, will give an inferior preparation; this is so with the general formula for Volatile Oil Emulsions as contained in the *National Formulary*. This formula directs that 120 grains of Acacia be used for each half fluid ounce of Volatile Oil. This quantity of Acacia is entirely insufficient. The mixture separates after standing a very short time. A good emulsion of turpentine, or of any other Volatile Oil, may be made by the following formula:

Oil	½ fluid ounce.
Tragacanth	30 grains.
Syrup	1 fluid ounce.
Water enough to make	4 fluid ounces.

To the oil of turpentine contained in a dry bottle add the Tragacanth and shake; add 1 fluid ounce of water, agitate vigorously. Then add the syrup in portions, shaking after each addition, and finally enough water, in portions, shaking after each addition, to make 4 fluid ounces.

DR. JOHN JAMES REESE died in Philadelphia on the 4th of September, 1892. Dr. Reese was well known as the editor of the seventh edition of Taylor's "Medical Jurisprudence," and the author of a "Manual of Toxicology." He was in his 75th year.

SODIUM SALICYLATE IN SPRAINS.—Without desiring to lay claim to priority relative to the use of sodium salicylate in sprains, Dr. Labbée relates a few facts (*Sem. Med.*) pertaining to this subject. In a case of sprain of the tibio-tarsal articulation,he observed, after the administration of 4 grammes [1 dram] of sodium salicylate in four hours, that the pain completely disappeared, so that as early as the next morning massage could be resorted to without occasioning the slightest pain, and after four days the patient was cured. Since then he has prescribed the same treatment in a number of other cases of sprain, and has always obtained, it is claimed, equally satisfactory results as in the above case.—*Merck's Bulletin.*

READING NOTICES.

ALEX. M. BLIGH, M.R.C.S., Eng., etc., Liverpool, England, says: "S. H. KENNEDY'S EXTRACT OF PINUS CANADENSIS is an invaluable remedy for most diseases of the mucous surfaces, especially of the throat, and, indeed, the whole intestinal mucous membrane. In throat affections, relaxed uvula, chronic laryngitis, assuming the form of aphonia clericorium, to which teachers, singers and clergymen are subject, I have found its administration, both internally and as a gargle. most useful. I have considerable experience of its efficacy in clergymen, and find it invaluable in neurosis of larynx.

I DESIRE herewith to acknowledge the efficacy of Peacock's Bromides, and to say that I have recommended and prescribed it in nervous prostration, intestinal indigestion and dyspepsia, with admirable results, and have yet to be disappointed in this preparation when indicated as a tonic and nerve sedative.

Washington, D. C. EDWIN DOUGLAS WEBB, M.D.

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Eucalyptus and Thymol Antiseptic is adapted for use as an antiseptic internally, externally, hypodermically, as a douche, a spray, by atomization, and as a deodorant. Its application in surgery is unlimited. It is an excellent dressing for wounds. It combines the antiseptic virtues of benzoic acid, boric acid, oil of peppermint, oil eucalyptus, oil wintergreen, oil thyme and thymol.

Tablets of Yellow Oxide of Mercury, containing two hundredths of a grain of the oxide, are a valuable prophylactic against dysentery and enteric fever. They prevent fermentation and putrefaction, and render aseptic the alimentary tract.

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Antiseptic Liquid arrests decomposition and destroys noxious gases that arise from organic matter in sewers and elsewhere, and may be used in cellars, barns, outhouses and the sick-room.

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Ethereal Antiseptic Soap (Johnson's) was devised by an experienced nurse in the surgical clinic of the Jefferson Medical College. Its marvelous cleansing powers make it a valuable adjunct to the armamentarium of the physician and surgeon. Mercuric Chloride can be dissolved in it in ordinary proportions.

Parke, Davis & Co. will be pleased to forward, on request, any information desired concerning these products.

NORTH CAROLINA

MEDICAL JOURNAL.

R. D. JEWETT. M.D., } Editor.

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ORIGINAL COMMUNICATIONS.

TREATMENT OF PNEUMONIA.

By A. B Pierce, M.D., Weldon, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

In giving to the profession a synopsis of my treatment of pneumonia, I do not claim anything new as to the remedies employed, but I claim that their combinations and their peculiar and specific action are the essential points in the treatment of the disease. Neither do I intend to enter into any disquisition on the pathology or causes of the disease; but I shall take it for granted that every practitioner of medicine knows a case of pneumonia, when he sees it, unless occasionally it is masked by other symptoms, overriding and concealing the true characteristics of the disease.

In early life, in the commencement of my practice, I treated

many cases I met with with the lancet, tartar emetic and mercury, and had good success at that time, with this exception, the cases were more protracted, and convalescence was more tedious.

I have bled some cases as much as four times for four consecutive days, and every time the remedy seemed to give relief, and the case ended in final recovery, but as I said before, the recovery was slow. On one occasion, I recollect, after having bled the case four times, I left some Hive syrup, to be taken 30 drops at a dose, as an expectorant. The nurse, through mistake, gave a tablespoonful of the medicine at a dose, which produced hypercatharsis, but to my surprise, on my return to the patient, the symptoms were ameliorated, and the case went on to a favorable termination. So that, as some have been taught, hypercatharsis does not always produce unfavorable results in the treatment of pneumonia, and especially pleuro-pneumonia.

I recollect two other cases in my practice where I left my patients during the night, and on my return next morning I found the patients, during the night, had twenty five evacuations from the effects of repeated doses of calomel, and, to my surprise, the temperature had decreased from 104° the evening before to normal, and the patient was convalescing.

Coming down the line of practice for the last twenty years, either from a change in the sthenic character of the disease, or some other unknown cause, I have pursued a different treatment of the disease.

The combination of the remedies and the specific action of the drug is what I contend for as most essential in the treatment of the disease.

When called to the case early in the disease I direct my forces to break up the congestion, or engorgement of the lung, before it gets a strong hold upon the tissues, and for this purpose I commence immediately on the following prescription :

℞.—Calomel..... grs ij.
Dover's powder..... grs. iij.
Sulphate quiniæ..... grs. x.

To be given at a dose, and repeated every two or three hours.

If this does not break up the engorgement about the lungs by the third or fourth day, and produce a reduction of the tempera-

ture and lessen the frequency of the pulse, I continue the same remedies in smaller doses, say the following formula :

℞.—Calomel..... grs. ss.
Dover's powder..... grs. iij.
Sulphate quiniæ..... grs. v.

To be given at a dose, and repeated every two or three hours.

If this treatment is pursued for several days in most cases the disease will generally end in resolution about the seventh or ninth day, or twelfth at the farthest; and if you can succeed in producing the specific effects of the mercury at any time the symptoms will immediately cease, and the case will go on to convalescence. I have seen the specific effects of the mercury to take place when the temperature was 104° or 105°, and the pulse 120, and on the accession of the ptyalism the pulse and temperature would immediately go down to normal.

In a practice of nearly fifty years, I have seen but one case that did not yield to ptyalism, and that was a very old person.

My object then is, if I cannot break up the engorgement of the lungs in the first stage of the inflammation, to try to produce the specific effects of mercury. And I am of the opinion that the combination of quinine and Dover's powder, or some other preparation containing the properties of opium, has a tendency to hasten the peculiar effects of the mercury.

In corroboration of my views concerning the specific action of mercury and its effects, Dr. C. I. Gee, who has charge of two of the Penitentiary farms on the Roanoke river, informs me that in every instance where he has been enabled to produce ptyalism the disease has instanly yielded. In the winters of 1889–'90–'91–'92 he had about 25 cases of pneumonia, in which he succeeded in producing the specific effects of the mercury, and in every case the symptoms yielded on the accession of the ptyalism In pneumonia of a high grade of temperature it is very hard to produce the specific effects of the mercury.

Perhaps at some future day this difficulty may be overcome, and some means may be instituted to produce the specific effects of the mercury, when desired, which I should consider a great *desideratum* in the treatment of pneumonia.

OFFICIAL REPORT OF THE MICRO-CHEMICAL EXAMINATION OF SPOTS AND STAINS ON KNIFE-HANDLE AND BLADE AND ON POCKET-BOOK, AND BANK BILLS TAKEN FROM THE PERSON OF AN ITALIAN, JOSEPH POLITO, ARRESTED IN NEW ORLEANS, CHARGED WITH THE MURDER OF HIS BROTHER IN-LAW, SIMEONI CASCIO.

By Joseph Jones, M.D., LL.D.

(Professor of Chemistry and Clinical Medicine Tulane University of Louisiana, New Orleans.)

On the 1st of October, 1892, about 12 m., Mr S. H. St Martin, Sheriff of the Parish ot Ascension, Louisiana, appeared at my office, 36 University Place, and presented the following statement and the following document, issued by the Honorable Walter Guion, Judge of the 20th District

Circumstances of the Murder.

On the 22d of September, the body of an Italian, Simeoni Cascio, was found half buried in a ditch, and presented, upon examination, a penetrating wound of the skull on the right side, which penetrated into the brain, and also an incised wound of the throat, extending from ear to ear: the right arm was cut to the bone. The locality was a lonely old field, near the woods.

The victim was last seen going in the direction where he was found dead, in company with Joseph Polito. When last seen Cascio was walking in front of Polito, the former being a small man, and the latter a tall, powerful man.

Cascio had been several years in the Southern States, and was industrious and thrifty. Polito had married Cascio's sister in Italy, and had left his wife in that country, and reached Louisiana in January, 1892, and searched for his brother-in-law in Texas, and found him in about seven months, and returned with him to Ascension Parish about two days before the crime was committed. Polito disappeared the day that the crime was committed, about 8–11 a. m. Came to Donaldsonville, where he changed his clothes, and took the clothes with him, then came to New Orleans and changed his

clothes here; stopped at the corner of 6th and Tchoupitoulas streets, with a small Italian man, who had lost a hand.

Polito was arrested by Sheriff St. Martin and officers Pat Murray and Thomas Bell. Polito fled as soon as he saw the officers, and threw away a watch and chain, which was recovered and found to be the property of the dead man. The pocket-book contained $318, and he had a belt containing $220 in gold; he also had a valise containing the dead man's clothes :

The State of Louisiana	The State of Louisiana,
vs.	20th Judicial District,
Joseph Polito.	Parish of Ascension.

It is hereby ordered that the Sheriff of the Parish of Ascension be, and he is hereby, directed to take into his keeping a certain pocket-book and pocket-knife and certain paper money found in the possession of Joseph Polito, who is suspected of having killed and murdered one Simeoni Cascio, as well as any other property found in his possession and upon which supposed blood-stains may be found, and to convey and deliver the same into the care of Dr. Joseph Jones, or any other reliable expert, for the purpose of having said articles examined in order to determine by proper tests whether the same have upon them stains or marks of human blood; the said Sheriff being hereby directed to have said analysis made in his presence, and, when completed, to deliver all of said articles so examined into the keeping and custody of the Clerk of the 20th Judicial District Court for the Parish of Ascension. It is hereby further ordered, that said Joseph Polito be notified by a service of a copy of this order upon him.

Done and signed at the Parish of Ascension, this 28th day of September, 1892.

(Signed) WALTER GUION,
Judge 20th District.

A true copy :

Parish of Ascension, Sept. 30, 1892.

J. A. LANDRY, Clerk.

36 UNIVERSITY PLACE,
October 1st, 1892.

Received from Samuel H. St. Martin (Sheriff of the Parish of Ascension, Louisiana) the following articles for medico-legal examination :

(1) One ten dollar bill, No. E735823E, Sept. 22, 1891, Purcell National Bank, Indian Territory. Series of 1882. Two small spots supposed to be blood.

(2) Two five dollar bills:
No. A1861534*. U. S. Treasury Note. Legal Tender. Series of 1890. Several spots supposed to be blood.
No. A2421193*. U. S. Treasury Note. Legal Tender. Series of 1890. Several spots on front and back supposed to be blood.

(3) One knife or dagger:
Blade about 4 inches, handle about 5 inches. Blood supposed to stain parts of handle.

(4) Red leather pocket-book:
Supposed to contain blood on edge and other places.
This property taken from Joseph Polito 21st Sept., 1892.

(5) One hat and one collar lying near Simeoni Cascio.

JOSEPH JONES, M.D.

Witness:
HAMILTON POLK JONES,
S. H. ST. MARTIN.

36 UNIVERSITY PLACE, NEW ORLEANS, LA.,
October 3d, 1892.

Received from Dr. Joseph Jones the articles mentioned in the preceding statement, namely:

1st. Knife.
2d. Pocket-book.
3d. Three bank bills.
Two $5 and one $10 = $20.
4th. One collar.
5th. Fragments of hat.

S. H. ST. MARTIN, Sheriff.

General Results of the Micro-Chemical Examination of the Spots and Stains on the Articles Enumeruted in the Preceding Statement.

(1st.) Knife-blade and handle:

Length of entire handle and blade	9½	inches.
Length of handle	5⅛	"
Circumference of largest part of handle	2¾	"
Circumference of smallest part of handle	2	"
Length of blade	4⅜	"
Greatest breadth of blade	1	"
Greatest thickness of blade at junction with handle	⅛	"

The blade tapers to a sharp acute point, both the back and cutting edge tapering gradually to an acute point, forming a spear-shaped weapon. On the back of the knife there are seven deep notches about 1-16th of an inch wide and about 1-14th of an inch deep. The last notch is deeper, about ⅛th wide and about 1-11th of an inch deep. These notches run diagonally across the back of the blade, and are about ⅛th of an inch in length, and altogether occupying one inch of the back of the blade where it joins the handle. The blade works upon a strong pivot, and when closed enters a deep cleft in the brass-bound black ebony handle. The edge of the knife-blade, for about 4 inches, is thus sheathed and protected by the cleft in the handle. The body of the handle is composed of hard black ebony wood, strongly bound by three brass bands. The lowest band terminates in a figure resembling the head of a dog, the open mouth of which receives the point of the knife when closed. The largest brass band is ornamented with four marks in the form of crosses, and seven semi circular lines with small marks resembling rude crowns.

The ebony handle is ribbed and ornamented so as to secure a firm hold. The rivets are strong and the entire weapon of a powerful and formidable character, adapted to stabbing and cutting.

The blade presented marks of having been recently cleaned and filed. *The indentations on the back of the knife were apparently untouched,* and when carefully scraped and excavated with the point of a bright piece of steel, yielded dark red masses or particles resembling flakes of dried blood. *Microscopical examination and chemical analysis determined that the particles presented all the properties of dried coagulated human blood.*

In like manner the handle was subjected to minute examination, and by carefully scraping the sides of the cleft which received the

cutting edge of the blade, dark redish brown flakes were obtained, which, under the microscope and under the action of chemical reagents, presented the characteristics of *human blood.*

(2d.) Pocket-book :

Length of red pocket-book..... 8¼ inches.
Breadth..... 3¾ "
Color of pocket-book, bright red.
It contained 5 divisions.
The clasp was deranged.

One end of the pocket-book contained patches of dark redish material, which in several spots glued the divisions together.

Careful examination demonstrated that the scales, which were readily detached from the surface, presented all the essential microscopical and chemical characteristics of dried *human blood.*

(3d.) Bank bills :

Microscopical and chemical examinations showed that the spots on the bills were due to *blood.*

(4th) The spots on the collar were due to *human blood.*

Dr. Forbes Winslow relates in the columns of the *Echo* how in Alexandria, when some cholera soiled linen was about to be burned, an Egyptian offered to buy it for the purpose of converting it into cigarette papers. Although Dr. Winslow does not state whether or not the offer was accepted, he evidently thinks the possibility a very alarming one. Although, doubtless, most people would prefer cigarette papers made out of unsoiled damask tablecloths, the risk of infection by such means must be very small. If disinfection be ever more than effort of the imagination, surely the elaborate process of converting rags into paper must accomplish the perfect sterilization of the infected linen. The risk, if any, would lie in the removal and transport of the linen, and not in its ultimate conversion.—*Medical Review.*

REMARKS ON OBSTETRICAL TEACHING.

By J. Edwin Michael, M.A., M.D., Baltimore, Md., Professor of Obstetrics in the University of Maryland.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

If there is any one thing which distinguishes modern medical teaching from that under which our fathers, and, indeed, most of us, grew up, it is the decadence of the didactic lecture and the advance in the adoption of the demonstrative methods. Laboratory instruction has indeed been pretty closely associated with the teaching of the elementary branches for many years and with an ever-increasing importance. Anatomy has had its dissecting rooms, physiology and chemistry their laboratories. Medicine and surgery have been taught in clinics, as have also the various specialties, where the student looks on from a safe distance and has to accept the statements of the clinician on faith. The clinic must, from the the very nature of humanity, in many cases, degenerate into an exhibition of the skill of the professor rather than a means of instructing the student, and the resulting graduate enters the field of professional life with too limited an acquaintance with the contingencies with which he will have to deal, to justify the reposition of much confidence in himself. This deficiency in actual contact with disease and unfamiliarity with the use of means and measures indicated, resulted in the hegira of American medical students to Europe, where the abundance of clinical material and the facilities for closer clinical study were to be had. The deficiencies of many of our schools of medicine in this particular are still quite obvious, and the success of the post-graduate schools in the larger cities of the country is satisfactory proof that the degree-giving institutions do not fully prepare their students for actual clinical work.

The branch about which we are to speak has probably suffered more than any other from the methods of teaching formerly in vogue, and still it is one in which actual clinical teaching is perhaps more of a desideratum than any one of the departments of medicine. When a young graduate enters the lying-in chamber for the first time and reflects on the fact that he has two lives depending on his skill, and that he has not had the smallest opportunity to perfect himself in the practical workings of the theoretical obstetrics he has learned at college, he may well pause before he assumes such

grave responsibility. He may well find fault with the *Alma Mater* who has given him a diploma which claims for him such skill as the case may demand without once putting him to the test of actual practice. And yet this is the state in which most of us began practice. It is true that the fearful mortality which attended the attempts to form obstetric clinics before the antiseptic era was a good and sufficient reason for giving them up, as had to be done in some cases, but the fact remains that if a student is launched upon the public with no actual training, his earlier patients have to suffer while he is gaining experience. Fortunately, the introduction of the antiseptic system has made the obstetric clinic a possibility, and even reduced the mortality and morbidity of well managed hospitals below that of private practice, and there is now no excuse for neglect of clinical teaching in obstetrics which does not apply equally to other branches. Medical schools are availing themselves of this advantage all over the country, and the result must be that our younger brethren enter the field of practice much better equipped than we did. The problem which now faces teachers is, how to best utilize the abundant obstetric material which is to be found in all large cities in such way as to yield the best results in teaching with the minimum of damage to the patients. One point of great consolation presents itself here. The patients who come under care in an out-patient obstetric clinic are such as would otherwise be the patients of the most ignorant, and hence most dangerous, class of midwives, and there is not the slightest doubt that they are safer by far with the students who attend them than they would otherwise be.

The object of obstetrical teaching is to prepare the student to practice the art of midwifery in the most approved manner. I propose, in this paper, to consider the subject from that point of view, and to discuss with some detail the manner in which this object may be best attained. We have in obstetrics, as in the other branches of medicine, an art as well as a science to deal with, and we would be in error as much if we should undertake to teach the science without reference to the art as we would be if we should take the opposite course. In order to do our work thoroughly, we must combine the two. First, the elementary principles should be taken up and the groundwork laid well by a thorough inculcation of the anatomy and physiology of the parts and processes involved. Then

should follow the pathology. In other words, the didactic course, either by lectures or text books, or both. Contemporaneously with this there should be demonstrations and practice by means of artificial paraphernalia, the bony pelvis, the fœtal head, the fœtal cadaver, the manikin, together with practice in diagnosis and manipulations with or without instruments. Clinical work in the lying-in hospital under the supervision and instruction of those competent to give it, should be next in order, and this should be succeeded by actual attendance upon cases in the out-patient department, under limitations as to the contingencies in which aid shall be summoned, and with such aid always at hand. Let us consider these matters somewhat in detail:

1. *The Didactic Course.*—I regard the didactic course as the least important of the means which are to be used in the instruction of the student. It is true that some men learn better with the ear than with the eye, and this is particularly true, as a rule, of the men who are the least well educated, and for the advantage of these it is well that a didactic course should be given. Moreover, there are certain explanations and demonstrations which should always form an important part of such a course, which serve to make facts already partially understood more clear. The didactic course serves also as a ready means of communication between student and teacher, if the teacher makes himself approachable and shows such willingness to answer questions and clear up difficulties as he should. Those little five-minute talks which follow every lecture do more in many instances to clear the mind of the student than much regular study. In the main, therefore, I am inclined to look with some favor on the didactic course and to regard it as a boon to the average student, but it must not be forgotten that it gives the student but little more than can be attained from the intelligent study of a good text-book.

2. *By Artificial Paraphernalia.*—When we come to consider the effect of actual handling and study of the bony pelvis and fœtal head, we have to deal with the only means by which the student really ever comes to appreciate the mechanism of labor. By this means alone, with the parts disembarrassed of the softer structures which confuse us so thoroughly, even in the study of the same process in a real clinical case, he can acquire a practical familiarity with the ever-changing relation of the diameters of the fœtal

head and maternal pelvis and the consequent substitution of diameters which can pass, for those which cannot. The fœtal cadaver is invaluable, even if it were to be used alone as a means of study of the parts with which we must deal clinically. The sutures and fontanelles, as demonstrated on the skull, are very different to the touch made through the edematous scalp. But when the fœtal cadaver is used in connection with the manikin, we have an arrangement which, for all mechanical purposes, comes very near the real case. Here the first principles of palpation, an art too much neglected, may be learned. Diagnosis by touch of fœtal presentations and positions is almost as good as in the clinic, and, so far as version high and low forceps and the graver capital operations are concerned, the artificial arrangement about equals its prototype. One must not forget that in this kind of artificial study the student does not confine himself to the attainment of facts and methods. A most important part of his work is the acquirement of manipulative dexterity which will stand him in such good stead in his actual work. This point is more deeply impressed on me by my experience in the dissecting room as demonstrator of anatomy. I often had occasion to call the attention of students to the fact that their dissecting-room work was not only a means of learning anatomical facts, but that it was at the same time their first lesson in operative surgery, and that unless they learned to dissect well they could not ever expect to operate well. So the first application of forceps to a man who has had the advantage of this artificial training is not the same ordeal it is, or ought to be, to one who has not been so fortunate. He has only to consider the clinical conditions. The operative technique comes as second nature to him.

3. *Hospital Work.*—So far as American physicians, especially those who have not had the advantage of foreign clinics, are concerned, the later generations only have had the advantage of training in obstetrical hospitals. If most of us would only look back over our careers and picture the circumstances which surrounded our first entry into the obstetrical chamber, I think we would find ourselves in a position to envy our younger brethren in this matter. My own obstetric training, when my diploma was handed me, consisted in having seen one forceps operation on a poor woman, who died three or four days later of child-bed fever. I had never ausculted, palpated or otherwise examined a pregnant woman. My

first forceps operation was done far from help in a somewhat remote country district, and, although it terminated happily, it was more by the grace of God than in virtue of any preparation I had had for it, and reflection upon the circumstances which surrounded it and my then utter unfitness for its performance, makes me shudder at my own boldness. When I think of this, as I look over the lists for work in hospital, I am more and more impressed with the improvement which has taken place in obstetrical teaching. Hospital work is the real test and training which logically completes what has gone before. The obstetrical work in a modern hospital should represent the best practice of the day. Of course the work will necessarily vary with the character of the teacher who has it under control. This is, however, equally true of the other teaching of the department. My own idea is that it should be advanced, though conservative. Modern obstetrics should be taught, but the methods should have as much fixity as true conservatism will allow, and should not be changed with every veering of the winds of doctrine. When an advance is clearly demonstrated as correct and has had sufficient clinical support to maintain its position, it should become a part of the hospital technique. Students need a certain amount of dogmatism, and it is one of the most difficult tasks of the teacher to graduate the proportion. Rules should be definite and so arranged to cover, so far as it is possible, all probable contingencies. This inculcation of exact method is in itself invaluable to the student. In no respect is this so apparent as in the applications of the antiseptic method of treatment and preparation. Such a thorough grounding in these all-important matters as one gets in a well regulated hospital will last a life-time. When possible, the hospital should also be made the school for ante-partum diagnosis, and the material should be used largely for instruction in auscultation, palpation and touch courses. I have no doubt that the neglect which these things confessedly suffer at the hands of the general practitioner is, in large part, due to the insufficient training in them which the student receives. There will doubtless be much improvement in this in the near future.

4. *Out-Patient Work.*—It happens, unfortunately, that in many medical schools the clinical instruction in obstetrics is confined either to hospital work or to out-patient service. It is better, where possible, to have both these departments, for out-patient service

follows as logically the training in hospital, under the direct supervision of the resident physicians, as the latter does the preparatory work with manikin and cadaver. Out-patient work, properly conducted, is actual practice with the important advantage that the student engaged in it is always at liberty to call in aid whenever required, and should, in fact, be instructed to do so. I do not think it right to entrust such patients to the absolute control of even advanced students who have had hospital training. It is true that most students would have the proper sense of responsibility and would call in aid at proper times, but there are some whose zeal outruns their knowledge and whose desire to distinguish themselves is apt to make them reckless. Therefore a system of rules and limitations is needful in order that all may know not only when they may, but when they must, call for a consultation. Another point of great importance in the conduct of an out-patient department is the cultivation of a proper demeanor towards the patient. If there is any class of human beings who can legitimately claim all possible kindness and consideration from men it is the class we deal with in such a clinic. Young men are, as a rule, well disposed, and a little encouragement in the direction of courtesy to patients goes a long way in the direction of establishing a proper line of conduct. Careful attendance after confinement should be insisted on, and the keeping of a daily record of vital signs should be made a matter of duty. The conduct of such attendance and the revision of the records of the cases practically compels close observation of the case during the lying-in period, and teaches the student in spite of himself. Thus one is taken gradually and safely from generals to particulars, from theory to practice, under the shielding wing of his *Alma Mater*, and at the end of such an experience if he be not able to walk alone, he must attribute the fault to himself, and not to lack of opportunity.

I consider no apology necessary in laying this matter before you. When I reflect on my own obstetrical capacity at the time of my graduation and on that of those of my companions with whose acquirements I was best acquainted, and presumably of those of the generality of medical graduates of my time, I think I am in a position to appreciate the difference between then and now; and I confess that I feel proud to know that I am doing something towards improving the former state of affairs. I have tried to make

my clinic correspond to scientific obstetrics just as a chemical or physiological laboratory corresponds to, and supplements, the didactic instruction in those branches; in other words, to make the teaching of the branch objective and tangible. No part of the general practitioner's work is more important to him or his patients than obstetrics, and I deem it the duty of the medical schools to prepare him for it in the most thorough manner.

"COELIOTOMY," VERSUS "LAPAROTOMY," AS A SURGICAL TERM.

By Robert P. Harris, A.M. M.D., Philadelphia.

When you perform an abdominal section, and report the case, under what scientific term do you describe the operation? You probably call it a "Laparotomy," because hundreds of operators are in the habit of using the same word, or its synonym, in a dozen countries and languages.

Where did this term originate? You say it has a Greek derivation (the language of Greece having been the tongue of the first anatomists) and comes from two words, *lapara* and *tomæ*, to cut. Now, what did the Greeks call the *lapara?* It was certainly never the abdomen.

Did you ever look carefully into an ancient Greek anatomy to find out what the abdomen was really called in their language? The word *belly* appears ten times in the English version of the New Testament; did you ever note that the original Greek has the word *koilia*, and never *lapara*, in these ten places?

Rufus, of Ephesus, a distinguished physician and writer, born A. D. 112, wrote a paper entitled "Names of the Parts of the Human Body," in which he has this significant sentence: "The *omphalos* (navel) is the hollow which occupies the middle of the *koilia*, where we cut the veins that nourish the fœtus; the middle part of the hollow is the *akromphalon*" (top of the navel).

"Lapara" is a very old Greek term, and was applied in the time of Hippocrates to the parts between the short ribs and the iliac bone (the flank), and scores of old lexicographers have thus defined it. The operation for lumbar hernia, or laparocele, was a true lapa-

rotomy; and so, also, is that of lumbar, or laparo-colotomy. The term *lapara* originally meant a hollow, and was for this reason applied by the early anatomists to *the hollow of the waist.* It was never used to designate a convexity.

The misapplication of the term "laparotomy" commenced in the year 1811 in the medical thesis of a Wittenberg student of the name of Fiedler, who wrote in Latin under the title "De Laporatomia." He had witnessed a true laparotomy performed, on October 17, 1810, upon a man of fifty with a diseased colon, as he lay on his right side. Fiedler wrote again in 1817, and took it upon himself to coin such distortions as "laparo-gastrotomia," "laparoraphia," and "laparo-hysterotomia"—his desire seeming to be to supplant the term "*gaster*," which really meant the belly, by the word "lapara," which a careful investigation would have taught him was not its Greek synonym. The mystery is how an error of this kind ever made the progress that it has in leading the medical world astray.

"*Koilia*" being the Greek word for abdomen, the natural synonym of gastrotomy in its old meaning is "coeliotomy," pronounced soft (se-le-otomy). This is not a new coinage except as to its terminal, for we have long had *coelio-paracentesis* for tapping the abdomen. The term coeliotomy has been adopted by Professor Sänger, of Leipzig; by Dr. J. Greig Smith, in his *Abdominal Surgery;* by Profs. Keene and White, in their *Text-Book of Surgery;* and by a number of well-known medical writers. This adoption gives us the compound terms *coelio-hysterotomy* (Cæsarean section), *coelio-hysterectomy* (exsection of uterus through the abdomen), *puerperal coelio-hysterectomy* (Porro-Cæsarean operation), *coelio-nephrectomy* (abdominal exsection of the kidney), etc.

What characterizes the present position of our condemned term is its wonderful tenacity of hold in the nomenclature of gynecological writers who have admitted the error of its application in abdominal surgery. Two years ago I published a classical pamphlet on the subject, and sent it to prominent writers in thirty different countries I also sent a copy to every Fellow of one of our leading national medical societies just before it met in annual session in 1890, and their letters attested its effect upon their sense of reason. It convinced them that *lapara* was not the abdomen, and that *koilia* was; but it did not break up the habit of use, as sh

by the fact that four papers entitled "Laparotomy" appeared in their *Transactions* for 1891, and the term was time and again made use of throughout the volume, but no one said "coeliotomy" as much as once. The old rut is so easy to run in, and the laparotomy wheel will get in. It took eighty years to propagate the error, and it will take time to correct it.

MENSTRUATION IN AN INFANT.—Dr. O. E. Tchernomordik, of Tchashniki, relates (*Vratch*, No. 4, 1892) the case of a normally-developed and generally healthy girl who has been regularly menstruating since February, 1891, when she was not quite one year old. The hæmorrhage recurs every four weeks, lasting on each occasion four or five days, and being accompanied by occasional pain about the hypogastrium. The first menstruation was preceded by some fever, an urticaria-like rash over the whole body, and general restlessness lasting for three days. The symptoms subsided with the appearance of the bleeding. The girl's mother is somewhat nervous, but otherwise healthy. She began to menstruate about the age of 15.—*Brit. Med. Jour.*

CHICAGO DRAINAGE CANAL.—The canal which is to take the sewage of Chicago toward the Mississippi river and relieve the lake and the water-supply from the filth which is now poured into it in large quantities, has been begun (*Boston Medical and Surgical Journal*). This canal will take from Lake Michigan 600,000 cubic feet of water a minute, which it is hoped will be enough to dilute the sewage sufficiently to make the region tolerable through which the canal will pass. From the point at which the Chicago river leaves Lake Michigan to the Union Stock Yards is about four and a half miles, and it is at this point that the canal will leave the Chicago river and run about thirty miles to the Des Plaines river near Joliet. It is estimated that it will take four or five years to complete the work and that the cost will be from twelve to twenty million dollars. The drainage district will comprise the city and considerable outlying territory.—*Medical Review.*

SELECTED PAPERS.

PREVENTIVE MEASURES FOR INDIVIDUALS DURING TIMES OF ACTUAL OR THREATENED PREVALENCE OF ASIATIC CHOLERA.

By E. O. SHAKESPEARE, M D., Philadelphia.

* * * * * * * *

Regarding the comma bacillus of Koch as the infectious agent, it has been established by numerous and exact experiments that this microbe is not only able to live for a considerable length of time in water, but is even capable of enormous multiplication therein, specially if the water contain a certain amount of organic or vegetable material. The use of such contaminated water for drinking, bathing and culinary purposes is perhaps the most frequent mode of introduction into the human organism of the contagious principle of cholera infection.

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Experience has abundantly proved two laws, which have an important bearing upon the spread of cholera: (1) *The tendency to infection varies exceedingly among individuals, and is with the majority small.* (2) *Disturbed conditions of the digestive apparatus greatly increase the susceptibility of an individual and render him far more liable to an attack after exposure to the infection.*

* * * * * * * *

Protective measures may be considered from two standpoints: A.—with regard to the person suffering from an attack of the disease. B.—with regard to the healthy individual exposed to infection.

A.— *With regard to the person suffering from an attack of the disease:* The evacuations from the stomach and the bowels should be immediately disinfected; where this is thoroughly accomplished, it is impossible for the infection to spread beyond the attacked. The dejecta and the vomited matter should be passed into a vessel containing a quart or more of a strong solution of carbolic acid—one part to twenty of water or of chloride of lime, 10 per cent.

strong, and immediately after the evacuation a sufficient amount of the disinfectant should be added to make the whole quantity equal to the bulk of the evacuated material; the whole should then be gently stirred, and afterward allowed to stand for fifteen to twenty minutes, when it should be removed and emptied into a pit containing unslacked lime, and be immediately covered by a quantity of the same material. If circumstances render it impossible thus to dispose of the disinfected evacuations, they should be emptied into a large earthern vessel containing a quantity equal to their bulk of a solution of chloride of lime, 10 per cent. strong and stirred thoroughly therein; after remaining there for an hour or more, they may be emptied into a drain which leads to the sewer. The clothing of the patient as well as the soiled bed-linen, immediately after removal, should be disinfected by thoroughly soaking for an hour or more in a large quantity, more than sufficient to cover them, of a strong solution of carbolic acid, one part to twenty; or they should be immediately subjected to the prolonged action of boiling water or steam. The anus, hands and mouth of the patient should also, immediately after an evacuation, be washed with a disinfectant in this case, however, weaker than the above indicated, say one part to 2,000, of bichloride of mercury and water, for the anus and hands, and for the mouth water slightly acidulated with sulphuric acid. The hands of the attendants, also, should be washed with the same weak solution of bichloride of mercury after handling the patient. Under no circumstances should the attendant, or any one else, eat in the same room with the sick; and, as an invariable rule which should be scrupulously observed, no person who has been in direct contact with the sick or with any of his personal effects should eat without first thoroughly cleansing and disinfecting the hands.

B.— *With regard to healthy persons exposed to the infectious principle of the disease:* Remembering what has already been remarked concerning an increased susceptibility to infection by reason of disturbance of the digestive apparatus, it is strenuously insisted upon that all causes, of whatever nature, of disturbance of the functions of the stomach and intestines, should be studiously avoided—such as intemperance of all kinds, either in drinking or in eating; all irregularities of personal habits, either as to the time of meals, occupation, exercise, or hours of sleep; all emotional ex-

citements should be removed; in short, every circumstance which experience has shown may exercise a disturbing influence upon these important functions, should be carefully guarded against; the use of articles of food which are liable to occasion indigestion, or to cause an unusual or unhealthy activity of the digestive apparatus, should be interdicted; children should be carefully prevented from indulging in exhausting sport or exercise, and should be carefully shielded against intemperate weather; it is all-important that the functions of the skin should be kept regular and active by a sufficient amount of seasonable clothing by day and by night; particular care should be taken that revulsions of blood, produced by chills, from the cutaneous surface to the internal organs, especially the abdominal, may not occur, and in this connection it is strongly recommended that the abdomen be enveloped at night by a broad band of flannel, in order that during restlessness in sleep the skin of the abdomen may not be exposed to the direct action of the air; cold baths should be avoided; the surface of the body should be washed at not too frequent intervals, by sponging with *tepid* water, and afterward dried thoroughly by vigorous rubbing with a rough towel; meanwhile the body should be protected from draughts. irregularity and intemperance in eating and drinking have already been alluded to. It is important that imbibition of large quantities of water or other fluids at intervals between meals be avoided, for, if there were no other reason, it is a well known physiological fact that in the intervals of digestion the reaction of the gastric juices is neutral and sometimes even slightly alkaline. If contaminated water or milk should be allowed in large quantity during this interval, it is clear that the probability of the living infecting agent passing through the pylorus into the small intestine is greatly increased, and the possibility of an attack much enhanced. In a house where a cholera patient is suffering, the children should be kept out of the sick-room, as all others not in attendance upon the sick. But if, as often occurs among the class of people who are mostly the sufferers from cholera—the poor and the squalid—there be only one common room for the use of the family, no one should on any account be permitted to occupy the same bed as the sick, and during the day, as also during the night, all should avoid as much as possible contact with the sick bed.

Attention to the preparation of food is a matter of extreme im-

portance to all persons exposed to the infection of cholera, and especially to children. It goes without saying, that the materials consumed should be perfectly fresh and sound in every respect, and that the water and milk employed should be absolutely free from the living infecting principle, as well as pure and healthy. As a guaranty against the possibility of infection by means of water or milk, both should be thoroughly boiled before use, and, as it is possible for the cholera-microbe to multiply, both in water and in milk, the boiling should be *very recent.* Coffee and tea should be *recently* made and *served hot.* All food should be *thoroughly* and *recently* cooked. No raw fruit, of any description, except, possibly, a moderate quantity of perfectly fresh, ripe and absolutely clean fruit, should be eaten. *Salads* and other such articles should be *interdicted.* Bread, as well as butter, should be carefully protected against the possibility of contamination. The culinary utensils and tableware should be *scrupulously cleansed* with *boiling water.*

The hygienic condition of the dwelling and its surroundings should be made as perfect as possible. All decaying animal or vegetable matter should be removed. The house drains should be free and clean, and flushed with a sufficient amount of water at intervals, followed by the emptying therein of a liberal quantity of strong solution of copperas in water, or of a five per cent. solution of carbolic acid. The cess-pits and the privies should be kept clean and free from odor by the use of unslacked lime, large quantities of copperas, or other similar inexpensive materials. The supply for *drinking-water* should be *scrupulously guarded from possible contamination of any kind.*

Among the precautions to be enforced against a threatened attack of Asiatic cholera in anyone, but especially in the young, one of exceeding importance is watchfulness over the condition of the alimentary canal. In a large number, perhaps the majority of instances, an attack of cholera is preceded some hours or days by derangements of the digestive apparatus, such as distress or a sense of fulness or heaviness in the stomach, of gastralgia or nausea, or of occasional vomiting; or the disorders may be limited to the intestines only, and be manifested by vague general abdominal uneasiness or slight fleeting pains, or active peristaltic movements which can be seen or felt through the abdominal walls; and all or any of these may be associated or end with diarrhœa, and sometimes with

a tendency to disproportionate prostration or, again, the disorders of the stomach and intestines may be combined.

If these disturbances of the alimentary tract are properly discovered and remedied, many an attack of cholera will be thereby avoided. In such cases absolute rest in bed, and, if possible, also total abstinence for a day or two from food, should be enjoined; if there be reason to infer the presence in the stomach of undigested food, a single emetic dose of ipecac should be administered; or if there be visible peristaltic movements of the intestines, or diarrhœa, these should be controlled respectively by small doses of opium in a convenient form, and of such drugs as salol, naphthalin, or analogous compounds.

What has been thus far said applies especially to individuals; but unfortunately, in this disease, public interests and relations must also be regarded, and from this standpoint, *so long as there are in the locality only a few scattered cases of the disease*, the utmost effort should be made to prevent the establishment of an epidemic.

It is obvious that the evacuations of the intestinal canal of the attacked should, without loss of time, be carefully disinfected. But by no means all suffering an attack of cholera infectiosa are, especially in the earlier stages of the disease, so ill that they cannot be out of bed, and even out of doors engaged in their ordinary avocations. Yet experience has abundantly proved that those suffering "a walking attack" carry in their intestinal canal the infectious agent of cholera, and are capable, under favoring circumstances, of establishing a centre of infection wherever in their movements they may chance to avoid these intestinal contents. Hence the necessity of temporarily restricting the liberty of all inmates of the infected dwelling and of all persons in close communication with it, whether at the time of infection they are evidently suffering or not. All such persons should be isolated and kept under strict surveillance until the extreme limit of the period of incubation (say five or seven days) has fully elapsed, *counting from the commencement of the surveillance.* If, during these five days, no sign of even a slight or "walking attack" has made its appearance, and finally, if a culture-test, as already described, of the feces, has indicated the absence of the comma bacilli of Koch, the individual temporarily restrained of his liberty, both for his own benefit and for that of

the public, may be without danger restored again to the full enjoyment thereof.

To summarize and express in a single sentence the precautions which are effective against Asiatic cholera: keep clean, live regularly, eat moderately, eat and drink nothing that has not been subjected to a high temperature recently; never eat before thoroughly washing and disinfecting the hands. Pay no attention to prophylactic medicine. If any of them are good, they are not needed if the above precautions are strictly observed.

I have, in this popular essay, purposely avoided discussing anything which is not at present entirely practical. I have not mentioned preventive inoculation, which, I am convinced, will become, in the very near future, one of the most certain means of preventing an attack of Asiatic cholera, as well as stamping out quickly an epidemic.— *University Medical Magazine.*

REMARKS ON HAFFKINE'S METHOD OF PROTECTIVE INOCULATION AGAINST CHOLERA.

By E. H. Hankin, Fellow of St. John's College, Cambridge; Chemical Examiner, Analyst and Bacteriologist to the Northwest Provinces, India.

As I have recently been subjected by M. Haffkine to his anti-cholera inoculations, I propose to give an account of my experiences and a description of the method employed in the production of the vaccine.

In the course of his researches on the cholera vibrio which have been carried on during the last two years, M. Haffkine has met with many facts which tend to remove the difficulties that have hitherto stood in the way of accepting this microbe as the cause of cholera. Among these difficulties may be mentioned the impossibility of reproducing a disease in any way resembling human cholera by injections of Koch's vibrio into animals. M. Haffkine has recently succeeded in doing this in rabbits by a very simple and ingenious method. It is well known that the blood serum of the rabbit has the power of killing the cholera microbe. By cultivating the vibrio,

first in diluted and then in undiluted rabbit's serum, M. Haffkine has succeeded in "acclimatising" it, so that at length it is completely unharmed by the bactericidal action in question. If a small quantity of a culture in rabbit's serum of these acclimatised vibrios be injected into the veins of a rabbit, the animal will succumb, showing symptoms which M. Haffkine assures me are extremely similar to those of typical cholera. During the collapsed condition that precedes death, cramps are frequently observed, and on post-mortem examination the intestine is found to be filled with the typical "rice-water" secretion. The latter, and also the mucous membrane of the intestine, contain the vibrios in large numbers. In some cases they have been found in the bile duct and ureter, but never in any other part of the body. Generally these symptoms appeared within a few days of inoculation, but more rarely the animal remained in apparently good health for periods extending to a couple of months before the symptoms developed. These latter experiments suggest an explanation of those anomalous cases in which a patient has been observed to succumb to a second attack of cholera during the same epidemic. Perhaps he had never been really free from the virus after his first attack. The cholera may have existed in a latent condition, as was the case with these rabbits. I owe my best thanks to M. Haffkine for his permission to mention these results. It is to be hoped that he will soon publish an account of them in detail.

In this, as in many other cases, the first step towards obtaining a protective vaccine was the preparation of an abnormally virulent form of the microbe, the so-called *virus fixi* or *virus exalté*. M. Haffkine succeeded in this by passing the microbe through a series of guinea-pigs. If a guinea-pig is inoculated into the peritoneum with a suspension of an agar culture of the microbe, it will succumb, and in the peritoneum is found an exudation containing a larger or smaller number of the vibrios. If this exudation is injected into the peritoneum of a second guinea-pig, the latter will also succumb, and so on with a third; but, unless certain precautions are taken, the series cannot be kept up. Each successive exudation will be found to contain fewer and fewer microbes, and at last the total number of microbes present will not be sufficient to kill the next guinea-pig in the series. To avoid this result a procedure has been adopted based on the following facts: The quantity

of exudation formed varies in different cases. Usually, if a large guinea-pig is employed, a copious exudation, containing relatively few microbes, is produced. A small guinea-pig, on the other hand, yields a small quantity of exudation rich in microbes. Apparently the quantity of the exudation is a measure of the power of resistance possessed by the individual. M. Haffkine has based, on these facts, his method of passing the microbe through a series of animals. A guinea-pig is inoculated into the peritoneal cavity with cholera vibrios from an agar culture. On its death the peritoneal exudation is removed with a pipette, placed in a test-tube, and left for several hours at the temperature of the room. If it is abundant (several cubic centimetres), it is then injected into the peritoneum of a small guinea-pig. If, on the other hand, it is in small quantity (1 cubic centimetre or less), it is injected into a fully-grown animal. On the death of the animals in the former case, the liquid injected will be found to have become concentrated; in the latter case, an increase in quantity will be observed. By attending to these precautions, the cholera virus can be passed through an indefinitely long series of animals. From each exudation in a series, an agar culture is made for the purpose of controlling the purity. Each successive culture will be found to be more virulent than its predecessors; also the guinea-pigs in the series die in shorter and shorter times after injection of the exudation. Between the twentieth and thirtieth passage the maximum degree of virulence appears to be reached. At this stage the peritoneal exudation is fatal to guinea-pigs in six to eight hours after its injection into the peritoneum. Agar cultures made from such an exudation also possess and retain this increased degree of virulence. Microbes from these cultures can kill rabbits and pigeons in doses which would be perfectly harmless if given in cultures of the ordinary degree of virulence. In fact, this *virus exalté* appears to be about twenty times as violent as the ordinary form of the microbe.

As above stated, this *virus exalté* is rapidly fatal to guinea-pigs when injected into the peritoneum. It also kills them with certainty when introduced into the intestine or when given *per os* after neutralization of the gastric juice with soda and quieting the intestines with opium according to Koch's method. It also differs from the ordinary form of the microbe in that it kills guinea-pigs when in-

jected in small doses into the depth of the muscular tissue of the thigh.

If, however, it is injected under the skin, this *virus exalté* does not kill the animal; it produces a purely local malady. After a few hours an extensive œdema develops. This leads to necrosis of the tissues involved. In a few days the necrosed mass of tissue drops off, leaving a granulating wound. This at length heals completely. The animal is now found to be immune against inoculation with cholera in any way whatever, whether it is tested with ordinary or with strengthened virus, and whether it is introduced into the peritoneum, the intestine or the muscular tissue. Obviously, however, such a method of inoculation could not be practically employed. It is necessary to devise some method of first protecting the guinea pig against the necrosis produced by the *virus exalté*. This can be accomplished readily by a previous treatment with attenuated virus.

The attenuated virus is prepared by growing the microbe in a slow current of air. About 10 cubic centimetres of bouillon is placed in a flask having two lateral tubulures, and inoculated with the strengthened virus. The flask is placed in an incubator at a temperature of 39° C, and by means of a tube connected with one of the tubulures at one end, and, passing outside the incubator to a water-pump at the other, a slow current of air continually passes over the surface of the bouillon. The other tubulure of the flask is connected with a wash-bottle containing water and placed in the incubator, in order to saturate the entering air with aqueous vapor This precaution is necessary to prevent undue evaporation, as the bouillon only forms a shallow layer at the bottom of the flask. Under these conditions the microbes produce a culture, but then rapidly die. It is therefore necessary to reinoculate them every third day into a fresh flask of bouillon. After each passage the microbes are found to be more and more attenuated. At last, after a series of passages under these conditions, the microbes are found to be so altered that they have completely lost the power of producing necrosis in guinea-pigs even when injected under the skin in exaggerated doses. They still, however, retain the power of killing these animals when injected into the peritoneum in quantities only slightly larger than is necessary to attain this result with the ordinary virus.

If a dose of this attenuated virus (say one-eighth of a 24-hour old agar culture) is injected under the skin of a guinea-pig an extensive œdema develops within twenty-four hours. During the next few days this diminishes in size, leaving, however, a hard nodule, which persists for a considerable time. If a week later the animal is inoculated with a similar quantity of the strengthened virus an œdema develops, which is less than in the first case and does not lead to necrosis. When tested a few days later the animal is found to have acquired an immunity against the cholera microbe in whatever way it may be inoculated. This immunity has been found to be undiminished a couple of months after treatment.

Rabbits have also been made immune by the same method. They then show themselves refractory to every form of inoculation, including the method above described, which in the control animals leads to a disease resembling the cholera of human beings. M. Haffkine has also produced this immunity in pigeons These facts led M. Haffkine to try the effect of these inoculations on himself, and afterwards on seven other gentlemen. The following is the account of my own case :

August 16th, midday. Dr. Roux inoculated me with one-eighth of a 24-hour old agar culture of the attenuated virus suspended in 1 cubic centimetre of bouillon in my left side, about 2 inches above the crest of the ilium. 1 p. m., slight pain locally. 4 p. m., swelling noticeable, and pain on movement. 8 p. m., owing to pain on moving found walking about difficult. 10 p. m., temperature began to rise; noticed a feeling of malaise. 12 midnight, noticed temperature of 100°. This was the highest point reached.

August 17th, 7 a.m., woke up; felt better; temperature normal. The swelling formed an area about 8 inches long and 2 or 3 wide, extending towards the inguinal lymphatic glands; painful on pressure, and reddened. 12 midday; during the day I worked as usual in the Institut Pasteur, but had a bad appetite and a feeling of fatigue, which once or twice impelled me to lie down for a short time. 3 p. m.; the swelling extended during the day to the crest of the pubes and to within an inch of the umbilicus. This secondary extension of the swollen area was not painful on pressure, or reddened. 7 p. m., felt bilious. 9 p. m., took four capsules of castor oil.

August 18th; woke up feeling all right after a sound sleep; pain

notably diminished; could walk with ease, and went to a swimming bath.

August 19th, swelling and redness of skin greatly decreased; pain on pressure trivial.

August 21st, p. m., inoculation with one-eighth of an agar culture of *virus exalté* suspended in bouillon. The injection was made on the centre of the inner side of the left arm. 11 p. m., painful area extended to axilla; slight and occasional headache.

August 22d, 4 a. m., woke up; found it difficult to get out of bed owing to pain, but in a few minutes became accustomed to change of position, and walked about with ease; slight malaise and fever. 6 a. m., felt better. 9 a. m., breakfast, good appetite. During the day, August 22d, slept most of the time, but was awakened every hour to take my temperature; in the evening felt bilious and constipated; took about ½ ounce of liquorice powder; the swelling now extended from the axilla nearly to the elbow; this area was very sharply defined by the redness of the skin. Slept well all night.

August 23d, woke up feeling quite well. Pain had decreased, but the swollen area had extended, reaching about 3 inches below elbow. This secondary extension of the swollen area was not painful on pressure, and the skin had a normal color.

August 24th, pain and swelling notably decreased. Skin beginning to assume a yellow hue.

August 25th, further decrease of swelling. For an area measuring about 5 inches by 3, the skin was colored yellow.

No enlarged glands were noticed all through the experiment. At present the only trace of the inoculation is a small hard nodule, less than half an inch in diameter, at each seat of injection.

With regard to these inoculations I should like to point out that although the œdematous swelling develops with startling rapidity, there is no reason for considering it as likely to lead to any dangerous inflammation. The cholera microbe is not one that is capable of producing pus. Knowing this fact, neither M Haffkine nor I made any attempt to keep quiet or rest ourselves after our inoculations. M. Haffkine happened to be busy after his first inoculation, and, in spite of his fever, worked for twenty-four hours continuously in the laboratory without tasting food. I worked as usual after my first inoculation. Two hours after my second inoculation

I experienced the first part of my fever. It is noteworthy that both M. Haffkine and I had more fever after the second inoculation than after the first. All the other gentlemen who have been inoculated experienced only a trivial elevation of temperature and of discomfort after their second inoculation. Probably this is due to the fact that M. Haffkine and I had our second doses at comparatively short intervals after the first (five and six days respectively), and, as experiments on guinea-pigs indicate, these intervals were too short for the immunifying effect of the first dose to have completely developed.

The seven other cases presented symptoms essentially similar to my own, only, as above mentioned, the second inoculation (which was made after seven or eight days) produced far less general and local disturbance than the first. In two or three cases a transient constipation has been observed to follow the inoculation. In one case diarrhœa had been present for some days before the first inoculation, and vanished the day after it was performed.

M. Haffkine finds that it is also possible to vaccinate guinea-pigs by means of cultures previously sterilized by heat. In these cases the local reaction appears to be less than occurs after inoculation with living cultures. The immunity produced, however, does not seem to be of such a permanent character as that produced by the living microbe. It is possible, nevertheless, that for inoculations on human beings it may be well to commence with sterilized cultures, in order to diminish, as far as possible, the discomfort produced by later inoculations with the living virus.

I may mention here that in all his experiments M. Haffkine employs cultures on agar in preference to those in bouillon. The latter contain far more soluble poisons than the former, and there is reason for thinking that, as with the allied microbe the vibrio Metschnikovi, it is the less readily soluble substances contained in the bodies of the microbes that are concerned in the production of immunity.

What proof have we that these inoculations are of any value whatever in protecting human beings against cholera? If the cholera vibrio is really the cause of this disease, the conditions of infection that obtain in Nature and in the laboratory must be widely different. How, then, can success in producing immunity against "laboratory infection" of a guinea-pig justify us in concluding

that we have obtained immunity against "natural infection" of a human being. Obviously we have no direct and absolute demonstration of the value of these inoculations, and no doubt those people who need such proof before they are convinced will feel themselves justified in being "dead certain" of the futility of M. Haffkine's method for a considerable time to come.

In the first place, it may be noted that the fact that there is a difference—it may be a great difference—between artificial and natural infection, though suggesting a source of error, is not of itself a reason for thinking that immunity against the one is not immunity against the other. In discussing the probability of an animal or a human being immune against a particular microbe, we are concerned not so much with how the microbe can get into the system, but with what it does or does not do when it gets there. If any animal has been made immune against the cholera microbe, it has always been found to be capable of resisting it, in whatever way it may have been introduced into the body. Consequently, if a human being has been made immune against the effects of the cholera microbe when injected under the skin, analogy suggests that he is immune against the same microbe when it seeks to enter the system by the natural way, whatever that may be. But are those gentlemen who have been inoculated by M. Haffkine immune to the effects of the cholera microbe when inoculated under the skin? This is a matter which can be put to the test with great facility. The effects of a subcutaneous inoculation of the attenuated cholera microbe on a human being may be said now to be well known and easily recognized. There is a widespread and rapidly developing œdematous swelling and redness, which only vanish gradually after the lapse of several days. A small hard nodule also appears at the seat of inoculation. These changes may be regarded as a distinct character of the cholera inoculation. The fever and malaise, on the other hand, cannot be so regarded; probably a similar injection of almost any microbe would produce a similar elevation of temperature.

Consequently, the presence or absence of a "local immunity" in a human being who has been subjected to M. Haffkine's treatment can be readily tested by a repetition of his first injection, namely, that of the attenuated virus. M. Haffkine has conceived the good idea of performing this experiment five weeks after his

inoculation with the strengthened virus. After the injection a swelling rapidly developed and as rapidly disappeared. It had almost gone in twenty-four hours, leaving no hard nodule, as had been the case with the previous inoculations. This result is sufficiently striking when it is remembered that the œdema produced by the first inoculation in M. Haffkine's case took nine days to disappear. As might have been expected, a passing rise of temperature was produced, but this also took place in a guinea-pig that had received the same repeated inoculation, and that had previously been proved to be perfectly immune against cholera on several occasions.

Another objection suggests itself. Dr. Cunningham has isolated several distinct and permanent varieties (or, as he prefers to call them, species) of the cholera microbe. Will immunity against one of them confer immunity against another? M. Haffkine's vaccines have been prepared from a cholera microbe of Indian origin, and his inoculated guinea-pigs have shown themselves to be immune against this race. Considering the number of different varieties—a dozen or more—that Dr. Cunningham has described, it is, to say the least, improbable that a cholera microbe isolated two months ago from a case in the Necker Hospital in Paris should be of identically the same race as the one of Indian origin that has been so long in use in the Pasteur Institute. M. Haffkine finds that a guinea-pig that has been prepared by his method is just as refractory to one microbe as to the other.

Is this method of inoculation likely to confer a permanent immunity? To this question no definite answer can be given as yet. Guinea-pigs inoculated by the same method as has been employed for human beings have been found after two months to have lost none of their immunity. *A priori*, it is far more probable that an inoculation with *virus exalté* should confer a lasting immunity than a slight attack of cholera. In human beings the immunity can always be tested from time to time by a subcutaneous inoculation. In the event of a lasting œdema being produced by this test inoculation, it can form the starting point for a repeated treatment. It may be noted that there is no reason for thinking that this method of inoculation could be any source of danger to other individuals. There is, on the other hand, every reason for believing that the

microbes injected are rapidly destroyed in the body, most probably *in situ*.

Lastly, it is important to remember that very probably after the first inoculation, less probably after the second, there may be a temporary diminution in the power of resisting the entry of the cholera microbes. Most probably within three or four days of the injection the power of resisting the attack of the cholera microbes has returned to normal, and after that time will continue to increase. If this is so, these inoculations should not be practised in a given place at the time that an epidemic is raging, without great caution. Before forming a definite conclusion with regard to this, further experiments on animals are needed.

The evidence at present existing shows that M. Haffkine's method of inoculation is not attended by any grave disturbance of health, and that it can be practised on human beings with perfect safety. The fact that it produces immunity against cholera in any form, in animals of such widely different organization as guinea-pigs and pigeons, gives reason for hoping that it may produce an equally good effect in human beings, but it must necessarily be a long time before we can possess any direct evidence of any value on this point.—*British Medical Journal.*

SUTURING OF DIVIDED TENDONS.

By A. H. Meisenbach, M D., Professor of Surgery, Marion-Sims College of Medicine, St. Louis, Mo. (Read before the St Louis Medical Society.)

On the 10th of January, 1892, I was called to see A. M., aged 19 years. He had gotten his hand into a planer. After the injury was received he had gone to the City Dispensary, where a temporary dressing was applied.

I found the patient had a transverse wound on the dorsum of the left hand, midway between the wrist and the fingers. The wound was about two inches long, extended through the skin, and had severed the extensor-tendons of the little, ring, middle, and that part of the extensor of the index finger that is supplied by the mus. ext. commun. digitorum. The ext. indicis was intact.

The fingers dropped and he had no control over them. Being late in the evening, and recognizing the fact that the uniting of divided tendons would be a job requiring time and assistance, I ordered him to come to my clinic at the Marion-Sims College of Medicine on the following morning. I applied antiseptic dressings and placed the hand on a splint for the night. On the following morning at the clinic chloroform was administered, and with the aid of assistants I proceeded to operate in the presence of the class. I enlarged the wound transversely, and also made an additional incision as far as the annular ligament, parallel with the axis of the forearm and intersecting the transverse one. The tendons had retracted very high up within the sheath. I attempted to "fish up" the tendon without cutting the annular ligament. For this purpose I used a slender mouse-tooth forceps. My attempts, however, were futile, as the divided tendons were too high up. I therefore enlarged the incision running parallel with the axis of the forearm, to a point three inches above the wrist-joint. Cutting down onto the common sheath of the ext. commun. dig., ext. min. dig. and ext. indicis, I slit open the sheath the entire length of the external incision; I also divided the annular ligament. Having now a clear field for operation, no difficulty was experienced in finding and getting hold of the upper ends of the divided tendons. Drawing the two ends of each tendon together, I united them with a single suture of catgut, using size No. 1. Having sutured all of the divided tendons, I now united the edges of the divided sheath with a continuous catgut suture. Opposite the point where I had sutured the tendons I left an opening in the sheath for drainage. When I attempted to unite the edges of the annular ligament, I found that I could not approximate the same by nearly a half inch, owing to the swollen tendons. I therefore simply drew the edges as near together as possible by two or three catgut sutures, leaving a space of nearly a half inch between the edges of the annular ligament. I now united the skin as far as the opening left in the sheath over the point where the tendons were sutured. Into the opening in the sheath I introduced a few strands of catgut for drainage. The external wound was tamponned with iodoform gauze. Placed the hand in a position of dorsal flexion so as to more thoroughly relax the extensor muscles of the forearm. Careful antiseptic dressing and position on a palmar splint, well padded so as to maintain

dorsal flexion, completed the dressing There was no reaction at any time after the operation. The first dressing remained *in situ* for about seven days; after that it was dressed every other day. Wound completely closed by the third week, the part which was sutured healing by first intention. Passive motion was now begun.

The functions of the tendons have been entirely restored, with a slight exception in that of the little finger. On closing the hand the little finger cannot be brought down quite as far as the others. This does not, however, cause any inconvenience. The reason why the little finger cannot be brought down is that a little shortening of the extensor tendon took place during the process of repair. It will also be noticed that, on extending the fingers, the scar on the back of the hand takes part in the motion. This is due to the agglutination of the sheath with the tendons. In other words, the tendons instead, as formerly, of gliding through the sheath, now are attached to it, and pull it to and fro when the muscles contract.

It may occasionally occur that where a tendon is cut and no effort is made to unite it, if a little retraction takes place, the ends become attached to the sheath, and this provides the medium of the continuity of the tendon, and the normal leverage of the muscle is kept up. This, I take it, can be a very rare occurrence. In the extension mechanism of the hand we find that we have a system of levers, and we can represent the muscles as the power, the fingers as the weight, and the knuckles as the fulcrum. When tendons are cut the leverage is lessened by destroying the area through which the muscles move in contracting. "Length for motion and breadth for strength," is an anatomical maxim everywhere illustrated in the apparatus of the bones and muscles. In the extensor apparatus of the fingers we find this beautifully illustrated. The muscles have long bellies, the tendons are long and numerous, and pass through intricate passages and sheaths. This explains why the function of extension is so completely lost when an extensor tendon is completely cut through. The retraction of the muscle is so great that the leverage of the muscle is lost, and thereby the ability to control the part to which it was attached. In time the muscle, having lost its normal point of attachment, and not being called upon to perform its physiological function, becomes weakened, atrophic changes take place within it, the physiological utility of the part or limb is lost.

Surgical text-books hardly refer to this class of injuries, yet their importance we all must admit. To the working man no form of surgery is of greater importance than that of the extremities, and especially that of the hand. These injuries are wont to be relegated to the domain of minor surgery, yet it sometimes requires a higher degree of skill and more exact anatomical knowledge to successfully repair the injury done, than it does to perform an amputation or trephine a skull. Formerly the opening of a tendon-sheath was followed by the most direful results. Tendo-synovitis, with multiple abscess, being the rule. I am sorry to state that even to-day we see occasionally these conditions follow injuries of tendon-sheaths, but they are much rarer, and this is owing to the increasing appreciation of the importance of "*intelligent first aid to the injured.*" The responsibility that rests upon the person that first dresses a fresh wound cannot be measured by words. To our young patient the importance of this fact cannot be denied; it meant either utility or crippling of function as the result. There are several points of interest in this case to which I would call attention. The first is the suturing separately of the divided sheath. This is, no doubt, of a great advantage, as it closes the greater part of the sheath from the general wound. No mention is made of this method of treating the wound in the works on surgery to which I have had occasion to refer. The imperfect suturing of the annular ligament, leaving a space between the divided ends, bridged over only by catgut strands, is also worthy of note. Recent investigations in Germany have shown that in resection of tendons it is not essential to a good result that the ends of the tendon be accurately approximated It has been demonstrated that where quite a space exists between the ends of the tendon, and a suture of silk or catgut is placed between them, the products of plastic repair travel along the suture from one divided end to the other, the suture acting as a guide; and ultimately the whole space is filled in by plastic material and the tendon is united. This is what practically took place in the annular ligament in this case. Of especial importance, also, was the incomplete suturing of the tendon-sheath and a catgut drain placed in the same. In this class of wonnds drainage is of the greatest importance.

In the suturing of divided tendons, in order to obtain good results, the following indications must be met:

1. The utmost care in carrying out complete aseptic and antiseptic measures.

2. Enlarging the wound to such an extent that a free field for operation is obtained; extensive opening of a sheath, if necessary, to easily catch up retracted tendons.

3. Care in suturing the corresponding cut ends with silk or catgut, preferably catgut.

4. The ends of tendons, if ragged, may be resected, so as to get smooth edges If not enabled on this account to approximate the ends, with a suture intervening, good results may still be expected.

5. Careful suturing of the sheath with continuous catgut suture, leaving an opening for drainage at the site where tendons are sutured.

6. Appropriate position on a splint, the parts being so placed as to relax the sutured tendons.

DR. WM. WALTER, in the *British Medical Journal*, October 1, 1892, reports a case of tubal gestation in a woman 29 years of age, in which both tubes were gravid Both tubes were removed by operation, with recovery of patient.

SUTURE OF THE LUNG has been carried out by Dr. Guermonprez in a man of eighteen, whose pleura had been opened for a pneumothorax, and had been followed by a persistent broncho-pleural fistula. Portions of six ribs were removed and the orifice of the fistula was sutured with catgut. The patient made a slow recovery, but finally was able to resume work.—*Med. Record.*

LONDON is still suffering fr m its severe epidemic of scarlet fever. All the hospitals of the Asylums Board are filled with scarlet fever patients, and it is thought that the cases which remain at their homes for lack of accommodation will largely exhaust the 400 extra beds which are about ready in the new hospital. These yearly epidemics are not complimentary to the work of health boards. In Edinburgh, also, a similar epidemic has assumed such proportions that it has been agreed to use a hospital for scarlet fever patients which had been set aside as a cholera hospital.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

☞ *Original communications are solicited from all parts of the country, and especially from the medical profession of* THE CAROLINAS. *Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the* JOURNAL, *by sending the address to this Office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and accept ability. All remittances must be made payable to* R. D. JEWETT, M.D., *P. O. Drawer* 810, *Wilmington, N. C.*

DR. JENKINS AND THE TRANSATLANTIC STEAMSHIPS

We notice with pleasure that the representatives of the Transatlantic Steamship Companies in New York have passed a series of resolutions endorsing Dr. Jenkins, the health officer of New York. They express the belief that his prompt and manly conduct of the quarantine has averted an epidemic of cholera in that city, and has spared the whole country the danger that was threatening it by an invasion of this disease. This is both timely and just, and will be accepted as the opinion of the people at large throughout the United States. We do not believe there is on record a history of an emergency of like character which has been handled with more consummate skill. It proves that maritime quarantine can be efficient without serious detriment to commerce—that it no longer means the ridiculous detention of the vessel and her occupants and

cargo without disinfection, which have made it a source of contempt among our English cousins—and it puts the stamp of energy and thoroughness upon preventive medicine in this country, which it will be of service for the unbelievers in our systems to consider.

We trust it will be within the power of medical officers in charge of ports of entry to succeed as well as has been done by Dr. Jenkins and his corps of assistants, and it behooves State authorities to provide their stations with the money and means to grapple with the disease as soon as it appears within the lines of the port. This is the place to corral it. For inland quarantine is, in the very nature of things, of doubtful avail, because of the many avenues that open for the approach of diseases and the difficulty of scrutinizing accurately the persons and freight that pass through them.

ANTISEPTIC SYMPHYSIOTOMY.

The introduction of surgical procedures to enable the accoucheur to safely deliver a child from a deformed pelvis, and at the same time save the life of the mother, is always of absorbing interest. There is no doubt a growing reliance upon the improved Cæsarean operation, which makes necessary for its completion the careful suturing of the uterus, in addition to the ordinary steps of a laparotomy and Cæsarean section, but its performance involves the necessity for a knowledge of the technique of laparotomy, and the general practitioner hesitates to attempt it. The outcome of aseptic surgery has been to dispel much of the fear of invading the peritoneal cavity, and the results that have come to surgical interference to save both mother and child where delivery was impossible through the natural passage, have been satisfactory and need no new recital. But Morisani, of Naples, proposes as a simpler and safer method than this the section of the symphysis pubis, and we are indebted to Dr. R. P. Harris, of Philadelphia, for a clear account of the operation and its limits of applicability. The presence of fibroid tumor, large enough to prevent the passage of the child, the invasion of the neck of the uterus by cancer, preventing its dilatation, coxalgic ankylosis, or pelvic exostoses, forbid the operation. The oblique distortion of the Nægele pelvis and the

ankylosis and transverse contraction of the Roberts pelvis would, of course, prevent the adoption of this new method. We leave the description of the operation in the words of Dr. Harris, which we copy from his paper read before the late session of the Gynecological Society in Brooklyn, and published in the *American Journal of Obstetrics and Diseases of Women and Children:*

"*Mode of Performing the Operation.*—The armamentarium required is very simple, viz., a scalpel, Galbiati's probe-pointed, sickle-shaped bistoury, some hemostatic forceps, a needle-holder and needles, a metallic female catheter, ligature silk, gauze and cotton. These having been sterilized and arranged, place the parturient woman on her back at the side of the bed, with her knees drawn up and separated; shave the mons veneris and labia majora, and disinfect the suprapubic region, the vulva, the perineum and vulvo-vaginal canal. Examine the depth, thickness and direction of the symphysis, and search out the fossa in its superior edge which marks the point of union of the two pubic bones; then examine the inferior margin and the anterior and posterior faces of the pubes.

"Introduce the catheter, and give it into the hand of an assistant, that he may depress the urethra from the pubic arch and at the same time carry it to the right side to save it from injury. Make a vertical incision through the skin and fat above the pubes, about 2¾ to 3 inches in length, ending about ¾ of an inch above the symphysis, cutting the tissues gently, and passing in a line toward the left of the clitoris so as not to injure it. Detach for a short space the recti muscles from their attachment to the two ossa pubes; introduce the left index finger into the opening and separate the retro-pubic tissue. Then apply the palmar face of the finger against the posterior face of the symphysis, and hooking with it the inferior margin of the articulation, while the assistant attends to the catheter as stated. The operator then introduces the Galbiati knife and hooks the blade around the articulation, cutting the interosseous ligaments and cartilage from within outward, and below upward. When the section has been completed it will be known by a creaking sensation and a separation of the bones from 1¼ to 1½ inches.

"After this step cover the wound with the gauze dipped in a bichloride solution of 1 : 4,000, and attend to the delivery of the fetus, having at the same time the separation of the innominata

antagonized by pressure from the hands of assistants. During the passage of the head spray the vagina and ascertain the amount of pubic separation; and when the placenta has been delivered, introduce six or eight interrupted silk sutures into the edges of the wound, dress it with sublimated cotton 1 : 2,000, and bandage the pelvis and lower extremities.

"These directions are in the main such as have been given by Dr. Caruso and by Prof. Morisani. The latter places the operator between the extremities of the patient and makes the incision 2 or 3 centimetres long. (He has very small hands.) The length of the incision must depend very much on the depth of fat to be cut through. Galbiati's knife has a thick, broad blade, and is now made with a metallic handle, grooved on the two sides, for perfection in cleanliness and sterilization. Dr. Spinelli, of Naples, has had a knife with a movable handle and three blades made by Matthieu, of Paris, so as to adapt the length of the cutting edge to the depth of the symphysis."

It is evident that the days of craniotomy are rapidly drawing to a close, and the obstetrician must seriously consider the responsibility of adopting this once much favored operation in the face of those now offered him.

EARLY LEGISLATION REGARDING NATIONAL QUARANTINE.

The epidemic of cholera which has so engaged the attention of the whole world, has revived in our country the question of the establishment of a national quarantine, and the appointment by the President of a medical man who shall be known as the Secretary of Public Health, and who shall sit with the President as a member of his cabinet.

Dr. Stephen Smith has contributed a series of articles to the *Journal of the American Medical Association*, in which he reviews the efforts in the first sessions of Congress looking toward a Governmental protection of the public health. From 1762 to 1791 this country was entirely free from yellow fever, due to the acts known as the "Commercial Monopoly," and the Revolutionary war, which caused an entire suspension of commerce between West

India ports and the United States. However, on the resumption of trade with these Southern ports yellow fever again made its appearance, first in New York, in 1791, and in succeeding years in Philadelphia, Baltimore, Charlestown, Annapolis and in Norfolk, Va. First one of these cities would quarantine against any intercourse with one or more of the others, and the following year the opportunity for retaliation would present itself and be made good use of. This method of quarantine became so burdensome to commerce and such a hardship on the citizens that on December 16, 1790, the merchants and other inhabitants of the city of Baltimore senth a petition to the Fourth Congress, sitting in New York, asking that a health office be established, or some provision made by law, for protecting them against the introduction of infectious diseases. The petition was referred to a committee who reported that it was their "opinion that a law ought to be passed with general provisions in this respect," not only for the port of Baltimore, but for all others into which considerable imports were made. Nothing more seemed to have been done with the petition.

On the 17th of April, 1796, Mr. Samuel Smith, of Maryland, proposed a resolution, "That the President of the United States be authorized to direct such quarantine to be performed on all vessels from foreign countries arriving at the ports of the United States as he shall judge necessary." This was referred to the Committee of Commerce and Manufacture, who reported a bill authorizing (1) the President to direct at what ports and for what length of time vessels should perform quarantine; and (2) that the President be authorized to direct the revenue officers and the officers commanding ports and revenue cutters to aid in the execution of quarantine, and of the health laws of the States as may to him appear necessary. This bill was referred to a committee of the whole, and was fully discussed as to its constitutionality and wisdom, and finally passed on its third reading after striking out the first section. It passed the Senate with a slight amendment, and was approved May 27, 1796. In 1798 yellow fever attained the proportion of a national scourge, and President Adams, in his address, called the attention of Congress to the importance of taking some action to assist the State governments. Mr. Smith, of Maryland, presented a bill and it was passed in both houses and approved February 25, 1799. It provided for the assistance of the

State authorities by the Government officers, for the building of suitable wharves and warehouses, and for the unloading and disinfection of vessels under quarantine regulations.

In 1802 Dr. Samuel L. Mitchell offered a resolution that a committee be appointed to inquire whether any, and, if so, what changes were advisable in the quarantine law. In his remarks he desires to do away with quarantine, and, instead of requiring a ship "to perform quarantine," she should "simply be directed to be made clean." He believed the origin of the yellow fever to be in the filthy condition of the ships, which produced what he termed septones, and these should be destroyed by alkalines—soap, lye or lime.

FOR SALE.—Harvard surgical chair, one set torsion balances (new), one air-condenser with pump. Further information on application to this office.

PARIS has established hot water fountains, which, for "a half-penny in the slot," furnish two gallons of hot water. The *British Medical Journal* comments on this move as follows: "The domestic uses of this supply for the poorer slaves and for many housewives is obvious; and so is the sanitary value. Let the water be made boiling by 'a penny in the slot,' and the drinking water question is appropriately solved by compromise. The 'penny in the slot' may help us to work out some forms of social salvation."

GLYCERIN IN HEPATIC COLIC.—At the meeting of the Académie de Mèdecine, March 8, 1892, Dr. Ferrand (*La France Medicale*) read a paper on this subject, of which the following are his conclusions: (1) Glycerin administered by the stomach is absorbed as such by the lymphatic vessels, notably by those which proceed from the stomach to the hilus of the liver and to the gall-bladder; it is found even in the blood of the subhepatic veins. (2) It is a powerful cholagogue and a valuable remedy in hepatic colic. (3) In large doses (20 to 30 grammes—5 to 7½ drachms) glycerin cuts short the paroxysm at once. (4) In smaller doses (5 to 15 grammes—to 1¾ drachms) glycerin, taken daily, in a little alkaline water, a the return of the attacks. (5) Glycerin, although it is not is, however, the remedy *par excellence* for biliary and *Surg. Reporter.*

REVIEWS AND BOOK NOTICES.

DISEASES OF THE EYE: A Handbook of Ophthalmic Practice for Students and Practitioners. By G. E. DE SCHWEINITZ, M.D. With 216 Illustrations and 2 Chromo-Lithographic Plates. Philadelphia: W. B. Saunders, 1892. Pp. 641. Price, Cloth $4.00; Sheep $5.00.

The author has called to his assistance Dr. James Wallace, chief of the Eye Dispensary of the University Hospital, who wrote Chapter I, on General Optical Principles; Chapter IV, on Normal and Abnormal Refraction, and portions of Chapters III and XIX; also Dr. Edward Jackson, Professor of Ophthalmology in the Polyclinic, who furnished the section on Retinoscopy.

All who are familiar with the author's reputation as an ophthalmic surgeon and as a teacher of diseases of the eye in the Philadelphia Policlynic and of Ophthalmoscopy in the University of Pennsylvania, will expect, in this work, one above the average in point of excellence, and they will hardly be disappointed. Specialists in this branch have not been backward in offering text books to the general practitioner, and some of them have been well received, and we doubt not the volume before us will have its place beside the best. Dr. de Schweinitz has had wide experience, and his opportunities have made him familiar with the needs of the student and the general practitioner, who is after the practical part, and, while he has given the reader the results of his own rich experience, he has also given reasonable prominence to the opinions of other surgeons.

Special attention has been paid to the examination of the eye and the sections on ophthalmoscopy and the diagnosis of errors of refraction are very clearly written

THE READY-REFERENCE HANDBOOK OF DISEASES OF THE SKIN. By GEORGE THOMAS JACKSON, M.D. (Col.) With 50 Illustrations. Pp. 553. Cloth, 8vo. Philadelphia: Lea Brothers & Co. Price $2.75.

This volume has no table of contents, but immediately after the short preface plunges into the subject matter of Part I, which is devoted to General Considerations, including Anatomy and Physiology of the Skin, Diagnosis and Therapeutic notes, and closing with

Some Dermatological Don'ts. This portion of the book is dwelt upon only to such a degree as is absolutely necessary, as may be inferred when it is stated that it is given only 28 pages.

Part II is devoted to The Diseases of the Skin and their Treatment. The diseases are arranged in alphabetical order, so that they may easily be referred to without consulting the index, which, however, is well prepared. The pronunciation of the names of diseases is given by the phonetic spelling of each, which is divided into syllables and the vowels marked with numerals to designate the sound. The work is intended to give to the busy physician the most useful and the acknowledged facts in regard to dermatology without requiring him to study long essays made up of theories and conflicting opinions The author has made no attempt to discuss debatable questions, and has succeeded admirably in presenting the subject clearly and concisely.

ESSENTIALS OF DIAGNOSIS, Arranged in the Form of Questions and Answers, Prepared Especially for Students of Medicine. By SOLOMON SOLIS-COHEN, M.D., and AUGUSTUS A. ESHNER, M.D. Fifty Illustrations. 8vo., pp. 382. Philadelphia: W. B. Saunders, 1892. Price $1.50 net.

This is No. 17 of Saunders' Quiz Compends, and is a very excellent book of its kind. The diseases are classed in the several groups generally adopted in the text-books, and the symptomatology and differential diagnosis of each are given. Some of the illustrations are colored, and the frontispiece shows the thorax and abdomen with front wall removed.

THE PRINCIPLES AND PRACTICE OF BANDAGING. By GWILYM G. DAVIS, M.D, Universities Pennsylvania and Göttengen; Member Royal College Surgeons, England, etc. Royal octavo, 60 pages. Cloth Geo. S. Davis, Detroit, Mich., 1891.

The author has been fortunate in producing a book for which a place has been waiting, and he will be a wise practitioner who finds a place on his shelves for this work. The subject is divided into three parts—Part I. The Roller Bandage. Part II. The Tailed Bandages or Slings. Part III. The Handkerchief Bandages. The description of the preparation and application of bandages to all portions of the body is very clearly given, and the text is illustrated

by numerous plates, each bearing several figures. To bandage well is an art which all general practitioners have not learned, and a careful study of the work before us will save many feelings of chagrin when told by the patient, at a second visit, "The bandage came off, doctor, and I put it back."

PRACTICE OF MEDICINE. By EDWIN T DOUBLEDAY, M.D., Member of the New York Pathological Society, and J. D. NAGEL, M D., Member of the New York County Medical Association. $1.00. Students' Quiz Series, No. 6.

GYNECOLOGY. By G. W. BRATENAHL, M.D., Assistant in Gynecology, Vanderbilt Clinic, New York, and SINCLAIR TOUSEY, M.D., Assistant Surgeon, Out-Patient Department, Roosevelt Hospital, New York. $1.00. Students' Quiz Series, No. 12.

These little books are of convenient shape and size for the coat pocket, and the matter is arranged in the form of questions and answers, as in "quiz compounds" generally. They will be convenient and really serviceable for those who desire to freshen their memories hurriedly on matters they have studied carefully in the text-books; but woe to him who pins his faith to them to such a degree that he depends entirely on the meagre information he gets from them for his knowledge of medicine. Should he succeed in passing the final examination at his college, he would feel very awkward, to put it mildly, if, when he presents himself before the Board of Medical Examiners of this State, he happens to be selected as one to stand a clinical examination.

A MANUAL OF ORGANIC MATERIA MEDICA: Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms, for the Use of Students, Druggists, Pharmacists and Physicians. By JOHN M. MAISCH, Ph. M., Phar. D. Fifth Edition. With 270 Illustrations. Octavo, 556 pages. Philadelphia: Lea Brothers & Co., 1892.

The present edition of this work differs from that of the preceding, which was issued in 1890, by having incorporated the observations and investigations which have been made in this branch of Materia Medica in the past two years, and in having the accentuation of the systematic names of plants and animals marked. The articles not recognized by the Pharmacopœia are distinguished

by smaller type, while in the former edition the same type was used, but was not leaded. The book will be a welcome aid to the student, as also to the physician who would like to vary the monotony of his routine life by investigating the properties of his native plants. The value of the book would have been enhanced had the time of flowering and color of flowers been given in all native plants.

We hear the S.S.S. man of Atlanta has gone on a visit to Hot Springs, Arkansas, for "rheumatism."—*Atlanta Medical and Surgical Journal.*

Rapid Dilatation of the Uterus in Uterine Hemorrhage.—Fifty-two cases of uterine hemorrhage are detailed by Dr. Armand Routh (*The Practitioner*, July, 1892), and the following conclusions drawn: Menorrhagia, and more especially when metrorrhagia is also present, without obvious cause, necessitates an exploration of the uterine cavity. The best way to explore the uterine cavity is to rapidly dilate the cervix with graduated bougies under anesthesia. That with rigid antisepsis there is practically no risk, and very rarely any subsequent pyrexia, unless malignant disease or salpingitis is present. That even where tubal disease exists or is suspected, exploratory dilatation of the cervix for metrorrhagia of apparently intrauterine origin is not necessarily contraindicated, salpingitis being often secondary to, and aggravated by, intrauterine disease. Here again antisepsis is all important. That when fibroids are really present the immediate cause of hemorrhage may be a removable one, such as a co-existing polypus or a fungoid endometritis, and that therefore the uterine cavity should, when practicable, be explored before removal of the appendages or hysterectomy is entertained. That in some cases dilatation alone suffices to relieve greatly both the bleeding and the pain. That if an exploratory dilatation was more often adopted prior to the employment of Apostoli's treatment it would tend to a more exact knowledge of its applicability and put its use on a more scientific basis.—*University Medical Magazine.*

CURRENT LITERATURE.

VISCERAL PHLEBOTOMY.

Dr. George Harley, of London, England, contributes a paper to the *Medical News* of July 23, 1892, upon this subject, in which he points out the great value, in his opinion, of this operation

Originally introduced by him in 1886, in the form of hepatic phlebotomy, it was attacked by a large number of the conservative members of the profession as a dangerous and unjustifiable operation. Notwithstanding this fact, Dr. Harley has persisted in its employment, and in the paper which we quote, advocates the extension of this measure to the relief of other organs than the liver which may be diseased, and points out that Dr. Christian Simpson has lately advocated pulmonary phlebotomy.

Dr. Harley then proceeds to quote two cases, which have already been published, but which he thinks are sufficiently interesting to reiterate.

The first was that of a woman of intemperate habits, aged 38, who was not placed upon the operating-table until she was supposed to be in a dying state from the combined effects of a greatly enlarged heart and an inflamed liver, complicated with ascites and marked anasarca. After she had been anæsthetized, Dr. Harley pierced the upper part of the liver from right to left with an 8-inch long trocar, of the diameter between Nos. 2 and 3 English catheter. The normal liver being at least ten inches broad in the average-sized woman, and this liver being greatly enlarged, he felt safe in thrusting the 8-inch trocar up to its very hilt. This was done with the object of striking some large vessel, which would permit of a sufficiently free stream of blood, to considerably relieve congestion.

On withdrawing the canula an inch or two of blood issued freely, and twenty ounces were extracted. The skin wound was closed with a piece of sticking-plaster, and a bandage applied.

The downward progress of the case was at once arrested, the liver decreased in size, and by means of tapping the ascites and anasarca disappeared. At the end of three months she had entirely recovered.

The second case was one of strumous abscesses of the liver,

occurring in a country lad of 17 years. The liver dulness extended from right nipple level to two inches below the umbilicus, and four to the left of the median line. The liver was punctured in several places, but was so hard and compact from inflammation that little blood was withdrawn. Several hours after the operation, however, free hemorrhage took place through the bile-ducts into the intestines, and within thirty-six hours the liver diminished in size one and a half inches all around. Six days after the first abscess pointed and emptied. In three days more the second abscess likewise emptied, and on the thirty-eighth day the patient returned home—a distance of one hundred and twenty-eight miles—with no bad symptoms.

In regard to pulmonary phlebotomy, Dr. Harley fully recognizes the difficulties attendant upon it. He quotes the plan adopted by Dr. Simpson, namely, that after the withdrawal of twelve ounces of blood the canula is to be held *in situ*, with the finger over the end to permit a clot to form, and then it is to be slowly withdrawn. Trifling hæmoptysis follows the operation.

Dr. Harley is confident that visceral phlebotomy is a therepeutic measure which is bound to become more popular, and he dreads no censure in boldly recommending the use of the operation on every suitably situated organ when it is seriously congested, in preference to the application of leeches or cupping-glasses to the external parietes The amount to be withdrawn may vary from a few ounces to a pint.

Dr. Harley gives the following directions as to the performance of the operation :

1. If it be deemed advisable to render the patient insensible, induce anæsthesia of the skin at the point selected for puncture by the local application of cocaine hydrochlorate.

2. Select the seat of puncture, and give such a direction to the trocar as will insure the point of its entrance into the organ, being brought into direct contact with the parietes by the application of pressure to them by a bandage after the completion of the operation, in order that the mouth of the wound in the organ may be thereby readily and effectually closed.

3 Let the trocar or aspiratory needles be of the size of a No. 2 or 3 catheter, and sufficiently long to penetrate deeply into the

organ pointed out, without there being any risk of entirely transfixing it.

4. Let the direction of the instrument be such as to avoid its puncturing any large blood-vessel.

5. When all these points have been attended to it will save the patient pain if the instrument be rapidly and at once thrust into the organ to the full depth it is intended to puncture.

6. If no blood flows, then slowly and by distinct degrees withdraw the canula, in the hope that a sufficiency of blood will ooze from the transfixed capillaries into the canal made in the organ by the instrument as will yield a free stream, and enough for the required purpose.

7. When the wished-for-amount of blood has been obtained, before withdrawing the canula altogether from the organ, but just before it leaves it, in order to obtain a blood-clot-cork to stop up the wound with, place the finger on the mouth of the canula, and keep it there until a clot has time to form, both in its interior and in the canal made in the organ itself by the instrument.

8. The next point is to get the clot in the canula to break off from that in the canal, so as to leave the latter behind, in order that by its presence there it may prevent any oozing of the blood from the organ after the withdrawal of the instrument. This is best done by giving a slight twist to the canula at the moment it is felt to leave the organ, when the resilience of the tissues of the organ will cause them to contract sufficiently firmly round the clot within to prevent its being drawn out along with the canula.

8. All that now remains to be done is to place an inch-sized square piece of adhesive plaster over the seat of the external puncture, and bind a pad over it, with a long flannel bandage sufficiently firm, so as to ensure the internal surface of the parietes being brought into close contact with the orifice of the wound in the organ, the more effectually to prevent the possibility of accidental internal hemorrhage taking place.

Dr. Harley concludes his article by the following words:

"All I have to add is that, if I am not very much mistaken, the day is not far distant when the old-fashioned, erroneous, as well as unsatisfactory, mode of withdrawing blood subcutaneously, will be totally abolished in all cases of inflammation and congestion of the internal organs having no circulating connection with the skin

and that the practice of visceral phlebotomy will become the recognized orthodox method of depletion in such cases."—*Therapeutic Gazette*, September 15, 1892.

THE RUBBER BULB AS AN AID IN INTESTINAL RESECTION.

Since the introduction of decalcified bone plates as aids in the operation for resection and anastymosis of the intestines, many suggestions have been advanced by surgeons in this country and abroad, looking to a simplification of the operation and a removal of the obstacles which have prevented good results.

The latest suggestion coming to our notice is that offered by Dr. Francis Reder in the *International Journal of Surgery*. The author recommends an inflated rubber bulb introduced into the lumen of the intestine, and thinks that a study of the instrument when in position will be convincing that, with its aid, the operation can be performed, not only more easily and neatly, but with less assistance and in less time than by ordinary methods. He uses bulbs of three sizes to suit the different diameters of the gut. They are all of the same length, 4½ inches, cylindrical in shape, their respective diameters being 1 inch, 2 inches and 2½ inches, and each allowing of one-half inch increase in diameter by inflation. They are made of thin rubber, about equal in thickness to "toy-balloon" rubber, a tube 8 inches long and about the thickness of a small drainage-tube being attached to the center of each.

After the diseased portion of the gut, with the corresponding V-shaped portion of the mesentery has been cut away the partially inflated bulb is inserted into the ends of the gut to be united, so that the tube will be opposite the attachment of the mesentery. The two ends are brought into apposition at the middle of the bulb where the tube is attached, and if there is any tendency to slip off, they can be held together by two wire serre-fines, one applied near the attachment of the mesentery with the gut, and the other at a point directly opposite. The bulb is then inflated through the tube until the bowel tissues are put upon a gentle stretch, when the operation of suturing is proceeded with. Czerney sutures are

used to bring the mucosa into apposition, being so applied that the knot remains in the lumen of the gut. Lembert sutures are employed in suturing the serous coat, and are about twice as numerous as the Czerney. The mesentery is sutured first, and then the gut, all except about a half-inch, corresponding to the position of the tube. At this point of the operation the tube is released and the air allowed to escape from the bulb. Care should be taken to remove any residual air by suction. The removal of the air permits the bulb to collapse sufficiently to permit easy removal through the half inch opening left in the gut, which is then closed up by two Czerney and four Lembert sutures. In the last Czerney suture the knot has to be imbedded in submucosa, it being impossible to apply it so that it can be left in the lumen.

The author claims, among the other advantages, that the inflated bulb overcomes the differences in calibre often present in the two ends of gut to be united, as it also overcomes, to a great extent, the eversion of the mucous coat. The time for a resection with the bulb and a skilful assistant, all preliminaries to the operation having been arranged, should be not less than fifteen nor more than thirty minutes.

CHLOROFORM NARCOSIS TREATED BY DIRECT INSUFFLATION IN THE INVERTED POSITION.

Dr. E. Q. Prince, in the *Medical Record*, records a case in which this treatment was successfully employed; it was an extreme case, which had resisted other measures ordinarily successful The patient, a man of 28 years, was to be operated upon for a supposed mastoid abscess. Examination showed a heart murmur, but inasmuch as he had, a few weeks previously taken chloroform safely, no trouble was anticipated this time. However, a short time after the operation was begun, circulation and respiration were both suspended. Which function was suspended first was not known, but it was supposed to be the former.

The patient was suspended by the flexed knees from the author's shoulders and trotted around the room for some time, and Sylvester's method was practiced. He was then placed on the table to all

appearances dead, hæmorrhage having ceased and the lost blood being of a very dark color. He was then taken on the shoulders of an assistant, as before, and trotted for about one minute. At this juncture it occurred to the author to use forced insufflation; so, kneeling down, he took a deep inspiration and forced the contents of his lungs into those of the patient by the direct mouth-to-mouth method. This was continued about three minutes, with the gratifying result that the cyanosed condition of the lips gradually improved. At this time an examination was made, but there was no evidence of pulsation or voluntary respiration. However, after a further continuance of the insufflation they were rewarded by the first natural effort at respiration. The operation was finally completed under ether. In concluding, the author states that this is the sixth case of suspended functions that did not respond to either the Marshall-Hall or the Sylvester method, the first five having recovered under suspension. This is the first case not responding to the suspension method.

CALOMEL AS A DIURETIC.

In an article in the *Ohio Medical Journal*, on the above subject, Saul Nickles says that the use of calomel as a diuretic was revived by Jendrassik. Lately nearly all of the works on therapeutics state that calomel has been found to be a powerful diuretic in dropsy, but their description of the method of using were imperfect. Jendrassik, in a case of dropsy, gave calomel and jalap and found diuresis followed in two days, greatly relieving the patient. This led to other trials with equally good results. In a very severe case of cardiac dropsy digitalis failed to relieve; Jendrassik then gave calomel and jalap, of each 4 grains twice daily, 4 grains on second day, 2 grains on third day and 3 grains on fourth day.

The quantity of urine increased from thirty ounces to over ten pints, profuse diuresis continuing until dropsy disappeared.

Jendrassik then used it in 24 cases, each of which was relieved, polyuria beginning about the second or third day. He found that salivation was not liable to be produced. Jendrassik tried calomel in healthy individuals; stomatitis and salivation resulted, but no

increase of urine; Stintzing used calomel in 27 cases, of which 23 were dropsical. He concludes that calomel acts more powerfully than all other diuretics; its diuretic action is manifested slightly in patients without œdema, but in a very high degree in cases of dropsy.

The effects are found in cardiac dropsy, whether this be the consequence of valvular disease or cardiac degeneration. Ascites, caused by portal obstruction, and dropsy, caused by chronic parenchymatous nephritis, are less amenable to the action of calomel. The incidental effects of diarrhœa, salivation and stomatitis may be prevented, or rendered harmless, by suitable prophylactic means. The best dosage recommended by Jendrassik is 3 grains daily, which should be continued at least three days. If dropsy does not disappear treatment may be resumed.

Nothnagel also tried calomel in numerous cases of dropsy, and found it to be very effective.

Opinions differ as to the mode of action of calomel. Jendrassik supposed that it increased the resorption of the dropsical fluid by the blood, and that calomel does not act like digitalis, by increasing the blood pressure.

Stintzing and some others hold that calomel acts directly upon the kidneys, because they found some increase of urine in patients not affected with dropsy. Cohnstein also holds this view.—*Medical and Surgical Reporter.*

[Many of our readers have doubtless experienced the non-action of the ordinary diuretics until free purgation was caused by a good dose of calomel. Any one who has tried it will vouch for the excellent diuretic power of the old familiar pill composed of one grain each of calomel, digitalis and squill.]

PROFESSOR BILLROTH'S JUBILEE.

The past few days have witnessed a series of festivals at Vienna in commemoration of the commencement of the teaching career of Professor Billroth at the above-mentioned school. The event, indeed, has been converted into a sort of Congress, which was inaugurated on the 8th inst. by the assembling of the former pupils

of this distinguished surgeon in order to testify their gratitude for the advantages they had derived from his instructions. On this occasion Professor Czerney, of Heidelberg, was deputed to present to Professor Billroth a volume containing a record of his principal surgical works, and entitled "Contributions to Surgery." In the evening of the same day a dinner was given to Professor Billroth, at which numerous congratulatory speeches were made. The jubilee extended to the 11th, on which day his friends and admirers assembled to listen to an address by Professor Albert. The commemoration has excited great enthusiasm in the medical world of the Austrian capital.—*London Lancet.*

[In this connection we acknowledge the receipt from Messrs. William Wood & Co. of a large photographic illustration of Prof. Billroth's surgical clinic in the Vienna Hospital. The patient has been anæsthetized, the several assistants are in their proper places, one being in the act of handing a scalpel to the great surgeon, who is standing in full view on the farther side of the subject. We will give this picture a conspicuous place upon our office wall, even if some other has to be displaced to accommodate it, and we thank our friends, Messrs Wood & Co., for their kind courtesy.]

ONE WAY OF INCREASING THE RETAIL DRUGGIST'S RECEIPTS.

While retail druggists are complaining of cutters and of their loss of margin in profits on handling patent medicines, many of them overlook a source of patronage the cultivation of which would add materially to their income.

There are numerous physicians to-day, buying their medicinal supplies from physicians' supply houses, who, with proper treatment, might be induced to patronize their local druggist. Do you do what you can to accommodate the doctor and make it to his interest to buy from you? There is not one doctor in a hundred but would prefer to buy his drugs in small quantities as he requires them, rather than place an order with a physician's supply house for a large amount. The doctor would rather invest fifty or seventy-

five cents in a small package than order $25 or $50 worth at a time from a supply house at a distance, if you would break stock packages and allow him a reasonable proportion of your discount. The physicians' supply houses are here to exterminate the retail druggist if they can. Why not retain your natural customer?

Do you try to win the confidence and coöperation of the doctor by refusing to advise people who come to you for medical advice, and suggesting that they apply to one of your doctor-customers? Probably not. Do you refill prescriptions on the patient's request, without orders from the physician? If you do, you make yourself a competitor of the doctor, and cannot expect his patronage. If you pretend to cater to him, and make every effort to cut his throat, you may expect the doctor of the future to do his own dispensing.

As a recent writer pertinently says: "Between the diminished prescription-trade and the low rates at which patent medicines are sold by these general stores, the druggist is verily in a predicament. There is but one true solution to the dilemma. The medical and pharmaceutical professions should be more intimately related, and should work hand-in-hand. The physician should not be a dispenser of drugs; he should be content with receiving compensation for his services. The pharmacist should be a compounder of prescriptions, and under no circumstances should he offer advice to the public in matters pertaining to the health of the individual.

"Let the pharmacist refuse to countenance quackery by abolishing from his establishment all patent medicines and advertising-matter pertaining to the traffic. At the same time let him respect the rights of the physician by refusing to refill any prescription unless authorized by the physician. The dealing in and recommending of patent medicines, counter-prescribing, and refilling of prescriptions are directly opposed to the rights and interests of the medical profession, and will ever be opposed by every honorable physician. Until the pharmacist learns to respect these rights he cannot expect to have the hearty sympathy and support of the physician. Let him assume the duties of a true and honorable pharmacist, and the physician will again give him the merited support.

"The medical profession refuses to countenance quackery in any of its phases; it refuses to associate with advertising physicians, and will never grant the compounder of its prescriptions a privilege

which its own members will not themselves assume. Physicians and pharmacists 'cannot serve both God and mammon,' and must choose whom they will serve. The doctor must either be a physician or a quack. The druggist must either be a pharmacist or a quack."—*Bulletin of Pharmacy.*

BENZANILIDE.

Luigi Cantu (*Rif. Med.*, August 2d, 1862) records the results of the administration of this drug in a number of patients suffering from various disorders. The drug had already been tried to a certain extent by Cahn in the Children's Hospital at Strassburg, and the therapeutic effects were declared to be very similar to those of acetanilide and salicylanide Benzanilide has a chemical constitution closely allied to that of acetanilide, and is a white powder, melting at 161° C., and dissolving in 61 parts of cold, or 7 of hot alcohol. It is insoluble in water, and with difficulty dissolves in ether; it has a slightly caustic taste, but no marked odor. It was given by the author in the following cases: 5 of typhoid, 12 of rheumatism, 4 of pneumonia, 3 of neuritis, 3 of sciatica, 2 of malaria, 1 of chorea, and 1 of tetany. As regards the dose, the drug was at first given in the same doses as acetanilide, but this amount being insufficient, the quantity was increased first to 1 gramme, and finally to 2 grammes, at which amount it showed its full action. A daily dose of from 4 to 6 grammes was well borne, but symptoms of intolerance began to appear after several successive days' use. The drug was given in capsules. In febrile conditions the action on the temperature is very energetic, and seems greater in proportion to the elevation of temperature. The action begins from half an hour to an hour after the drug is taken, and the maximum effect is reached after four or five hours, when the temperature again begins to rise, so that, in ten or twelve hours, it has reached its original level. The respiration is not affected save that occasionally it is increased in frequency. On the other hand, the pulse becomes slower and softer, and its tension, as measured by the sphygmomanometer, shows marked diminution; this effect does not seem to be in proportion to the effect on the temperature. No dis-

turbance of the digestive organs was observed in any of the cases in which the drug was given. The urine was not altered in quantity, density or reaction; its color was somewhat dark, approaching a greenish tint, the color increasing in intensity after exposure to light and air. With large doses the color sometimes became nearly black. This urine yields the reaction of para-amido-sulphuric acid. As regards its therapeutic effects, the drug seems to be a simple antipyretic, and to have little other influence on the course of a disease.—*British Medical Journal.*

THE RELATIVE VIRULENCE OF MICROBES FOUND IN WOUNDS WHICH HEAL BY FIRST INTENTION.

Budinger (*Wien. klin. Woch*, No. 22, 24, 25, 1892) describes some experiments undertaken in Billroth's clinic, in order to test the reliability of certain methods of wound treatment. As regards wounds healing by first intention, it is certain that any microbes that are found in them have come from the air, and have settled there during the operation. They have been able to resist even the floods of antiseptics often employed; they appear even to be capable of multiplying there. It is, in the author's opinion, practically impossible to talk of the treatment of wounds free from microbes. No method has been devised which will prevent the fall of microbes on to a wound during operation, or will kill them and prevent them from developing there. However, in the case of a clear wound, neither pathogenic nor non-pathogenic microbes can prevent it from healing by first intention. Now, are the microbes found under these circumstances—the pyogenic staphylococci—virulent or non-virulent? The author's inoculations, made on his own forearm, show that each of the varieties commonly found under these circumstances (S. albus, S. aureus and S. citreus) is actually virulent, and there is no doubt that the so-called "traumatic fever," sometimes accompanying even "aseptic wounds," is due to the absorption of some of the above-named microbes.—*Brit. Med. Jour.*

CURRENT NOTES.

Col J. H. Morrow, a wealthy horse-trainer of Columbia, S. C., has been convicted of supplying the means of abortion to a young woman, 18 years old, whom he had seduced. He was sentenced to six years in the penitentiary. His counsel made application for a new trial, which was refused by the Judge, who believed him guilty, and thought the sentence a just one. His bail was placed at $3,500, and it is thought he will furnish bail and leave the country.

We have it as a positive fact, from a layman *who knows*, that when a man's tongue is unmanageable from a too free imbibition of the ardent, with a tendency to transform his s's into sh, it may be brought under control in a few minutes by the administration of a half ounce of sweet oil. However, this does not untangle his legs, but as a dram of chloride of ammonia is said to accomplish this, it might be that a combination of the two will prove equal to a shot of Keeley's mixture. Who knows? Try it, doctor.

Chloroform Accidents.—Dr. H. A. Hare, 222 South Fifteenth street, Philadelphia, requests us to state that, having been asked to undertake a research at the expense of the Government of his Highness, the Nyzam of Hyderabad, India, with the object of reconciling the conflicting views concerning the action of chloroform, he is anxious to receive from American physicians and surgeons records of any cases where it was noticed that the heart stopped *before* respiration, or respiration *before* the heart. Notes concerning any such cases will be considered strictly confidential, provided the reporter states his desire that his name shall not be mentioned in the report of the research when it is finished; otherwise, due credit will be given for any information received.

The attention of physicians and surgeons who have in anticipation a visit to the World's Columbian Fair in Chicago, is again called to the Bureau of Information which will be established at Nos. 75 and 77 Wabash Avenue, through the liberality of Messrs. Charles Truax, Green & Co. This convenience is intended for physicians and surgeons (and their families) only, and it is hoped the visiting profession will make use of the advantages it will afford them. There will be, as has already been announced in a former

issue of the JOURNAL, reading and writing rooms, cloak rooms, a post-office and banking department, where all facilities will be furnished for cashing and drawing money orders and checks; assistance will be given in purchasing tickets—railroad, theatre, exposition, etc.—legitimate charges will be guaranteed in all such incidentals as messenger boys and cab rates, and, in fact, Messrs. TRUAX & Co. will spare no pains to make your visit pleasant. Interpreters will also be found in the building, and the whole thing is a voluntary offering, without charge.

THE CURATIVE ACTION OF HIGH TEMPERATURE ON WOUNDS.—The complete removal of tissue invaded by tubercle by means of instruments is in most cases a matter of difficulty, and the surgeon is obliged to supplement cutting by the application of caustics such as zinc chloride or of the thermo-cautery, but even then tuberculous nodules may be left and disappointment result. M. Félizet of Paris recently gave a trial to a blowpipe flame giving a temperature, as tested by the pyrometer, of 1500° to 1600° C. The blowpipe is fed with a mixture of one-third air and two-thirds petroleum. With this flame the morbid spots on the surface of the operation wound are "licked," so to speak, for a few seconds. The tissue immediately shrinks, the blood coagulates, but there is neither charring nor hæmorrhage. In a case of resection of the knee-joint, a forty seconds' contact of the flame suffices. M. Félizet has derived good results in thirty-eight cases, which comprised excision of the knee, hip and elbow-joints, and the treatment of tuberculous abscesses. M. Nélaton states that he operated on two cases of cancer of the os uteri, the operation consisting of scraping, followed by the application of the flame yielded by the gas cautery invented by his illustrious father. By this means recurrence was, in both instances, long delayed. M. Félizet reminds us that the thermo-cautery at dull red has a temperature of 700° C., and at white one of 1400° C. Charring of tissues occurs at these temperatures, which is not the case with his blowpipe flame at 1500 to 1600 C. M. Moty claims for the thermo-cautery at a white heat that held at a certain distance from a wound-surface it produces a kind of erection of the granulations and brings about a more rapid cicatrization. He believes that heat influences the vitality of the tissues and that the destruction of the germs which infest them is altogether a subsidiary process.—*Paris Correspondent of London Lancet.*

THE TREATMENT OF MYXŒDEMA.—A case of myxœdema is now under treatment the results of which will be watched with interest by the profession. The patient is a woman aged 40, who for nearly three years has been under treatment for myxœdema. In every respect it is an extremely typical case: persistently subnormal temperature, general swelling of the integuments, dryness of skin, partial baldness, clumsiness of movement, slowness and thickness of speech, etc The patient was admitted to the Royal Free Hospital in July, under the care of Dr. Hector Mackenzie, for the third time, in order to be treated by hypodermic injections of thyroid juice. In consequence of the difficulty experienced in obtaining the latter Dr. Mackenzie was induced to try the effect of feeding the patient on fresh thyroid glands. The result has been a striking improvement. The myxœdematous swelling has entirely disappeared, the temperature has become steadily normal, the skin moist and the speech natural. The patient says she feels as well as ever she did in her life. The change in her appearance is such that the existence of the disease would probably not suggest itself to anyone seeing her now for the first time. At first the thyroids of two sheep were given every day finely minced. This was probably more than was advisable, because a remarkable acceleration of the pulse ensued, which lasted until the thyroids were discontinued for a time. The importance of this method of treatment is obvious. In view of the recent observations on the advantage of the thyroid juice when given in the form of injections, this method would seem to constitute a distinct advance. It can be easily carried out and is free from risk, which cannot be said of the subcutaneous mode of treatment.—*London Lancet.*

SULPHATE OF DUBOISIN.—Dr. H. V. Hepperger (Valduna) has a dark yellow preparation of this drug, which is easily soluble in water, in the form of subcutaneous injections in different kinds of mental diseases. Fifty-two injections were made in 11 cases. The author gave a solution of 1-7 gr. sulphate of duboisin in 2½ drachms of water. From his experiments the following conclusions follow: (1) That duboisin sulphate is a fairly trustworthy sulphate, which, injected subcutaneously in doses of 1-70 to 1-50 gr. causes, in most cases, after from 10—20 minutes, a sedative effect, lasting many hours. (2) It is an efficacious hypnotic, which, when applied sub-

cutaneously in sleeplessness not accompanied by excitability, causes sleep even in a dose of 1-70 gr. When accompanied by excitability, it ought not be given to cause sleep in a dose under 1-70 gr. (3) The sedative and hypnotic action of the medicine begins in the first half hour. The sedative action lasts from 1 to 12 and 14 hours, the hypnotic action from 1—6 hours. (4) Duboisin sulphate can, in some cases, cause toxic effects in small doses (1-80 gr.), and it is to be recommended that on using it for the first time a dose of not more than 1-70 should be taken. (5) In a few cases the patients got accustomed to the medicine after from 3—4 injections, but if interrupted for 2—3 days this is not noticed.—*Jahresbericht der Voralberger Irrenanstalt*, Valduna, 1891.—*Medical Chronicle.*

NEW GRAPE SUGAR REACTION.—A new grape sugar reaction is reported by O. Rosenbach, in *Centralbl. f. Klin. Med.* If a solution of grape sugar or milk sugar is treated with a few drops of solution of soda and recently prepared sodium nitroprusside solution and heated to boiling, a deep brownish red or orange red coloration will appear, developing with slower or greater rapidity, according to the degree of concentration of the sugar solution. Ten per cent. of sugar is sufficient to produce a dark yellow color, strongly inclined to red. This reaction can be utilized for the detection of sugar in urine; but attention must be called to the fact that the red coloration produced is not the sugar reaction mentioned above, but is the kreatinin reaction of Wayl. Upon further warming the red coloration disappears, with the formation of a characteristic brownish red sugar color, which, upon the addition of sulphuric acid, slowly assumes a more or less azure blue—*Pharmaceutical Record.*

JOHN L. SULLIVAN is now said to be a paralytic. By the long-continued alcoholic soaking to which his tissues have been subjected the connective tissue elements have become hypertrophied, the increased growth causing atrophy of the muscular fibrillæ. The magnificent development of muscle that won him so many victories has thus given place to a spurious hypertrophy, the bulk remaining, the consistency even increased, but the force has imperceptibly diminished, until he again exemplifies the aged simile of the oak of fair appearance, but rotten at the heart.—*Times and Register.*

Messrs. Lea Brothers & Co. announce as nearly ready for issue "A Text-Book of Nervous and Mental Diseases," by Landon Carter Gray, M.D. The profession may reasonably look for an exceptionally excellent production from the pen of one of such acknowledged capabilities as Dr. Gray. We await the appearance of the book with interest.

A Diphtheria Epidemic Caused by Ice.—The Washington newspapers report the singular origin of an outbreak of thirty-two cases of diphtheria, of which fifteen proved fatal, that occurred in a small locality in that city. The body of a child that had died of diphtheria was packed in ice for two days, and when the body was transferred to the coffin the undertaker threw the ice on the ground outside his shop. Three children were seen eating the ice, and in eight days presented acute symptoms of diphtheria and died in a few hours. In all, thirty-two cases of the disease were ascribed to the deposit of the ice on the ground.—*N. Y. Medical Journal.*

At the second annual meeting of the American Electro-Therapeutic Association, held in New York, October 4th, 5th and 6th, the following officers were elected for the ensuing year: President, Dr. Augustin H. Goelet, of New York; Vice-Presidents, Dr. William F. Hutchinson, of Providence, R. I.; Dr W. J. Herdman, of Ann Arbor, Michigan; Secretary, Dr. M. A. Cleaves, of New York; Treasurer, Dr. R. J. Nunn, of Savannah, Ga; Executive Committee, Dr. W. J Morton, of New York; Dr. G. Betton Massey, of Philadelphia; Dr. Robert Newman, of New York; Dr. Charles R. Dickson, of Toronto, Canada; Dr. J. H. Kellogg, of Battle Creek, Michigan. The next meeting is to be held September 12th, 13th and 14th, 1893.

Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about $180, will be made on July 14, 1893, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the Secretary of the College on or before

May 1, 1893. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within it the name and address of the author. It is a condition of competion that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the reward. The Alvarenga Prize for 1892 has been awarded to Dr. R. H. L. Bibb, of Saltillo, Mexico, for his essay entitled, "Observations on the Nature of Leprosy."

DR. S. S SATCHWELL, one of the fathers of the Medical Society of the State of North Carolina, died at his residence in Burgaw, on Monday, November 7, 1892. It is too late for more than a simple announcement of his death in this issue, but a more extended notice will appear in our next.

READING NOTICES.

Happy and content is a home with "The Rochester;" a lamp with the light of the morning.
For catalogue, write Rochester Lamp Co. New York.

THE Rio Chemical Company, of St. Louis, if it had never done more than present to the profession its valuable EXTRACT OF PINUS CANADENSIS, would have placed the profession under a lasting obligation to it. There is no more healthful, stimulating and generally beneficial application that can be made to a diseased mucous membrane than this.

A MODERN METHOD OF MEDICATION.—Among the many methods of administering medicaments, the soluble elastic gelatin capsule is growing to be one of the most popular.

There are many efficient but unpalatable medicaments which may be readily exhibited in this way, without offending the palate of the most sensitive patients, and capsules are much easier to swallow and more soluble than pills.

Few physicians are aware of the many medicaments that are now administered in this way. Among these one need only mention the following to indicate the wide application of this method of giving numerous drugs: Apiol, balsam fir, balsam Peru, cascara sagrada,

castor-oil, castor-oil and podophyllin, chaulmoogra oil, cod-liver oil, cod-liver oil and creasote, cod-liver oil and iodine, cod-liver oil and iodoform, cod-liver oil and iron, cod-liver oil and phosphorous, copaiba, copaiba and cubeb; copaiba, cubeb and buchu; copaiba, cubeb and iron; copaiba, cubeb and matico; copaiba, cubeb, matico and sandal; copaiba, cubeb and sandal; copaiba, cubeb and sarsaparilla; copaiba and iron; copaiba, cubeb and turpentine; copaiba and sandal; creasote (beechwood), 1 minim; eucalyptus oil; gurjun balsam; linseed oil; liquor sedans; male fern and kamala; nitroglycerin, 1-100 grain; oil of pennyroyal; pichi extract; salol; tar, purified; valerian oil; Warburg's tincture; wintergreen oil; wormseed oil; quinine muriate and sulphate.

Of extra sized elastic-filled gelatin capsules there are castor-oil, 2½ to 15 grammes; cod-liver oil, 2½ grammes; male fern and castor-oil; santonin and castor-oil.

Messrs. Parke, Davis & Co. were among the first to make this method popular, and will be pleased to afford physicians interested all desired information concerning this agreeable method of medication.

EUROPHEN.—Among the new surgical dressings Europhen seems to have quietly taken an elevated position as a positive and complete substitute for iodoform. It seems probable from the recent investigations that we must rely upon some form or combination of iodine in order to secure a perfect local antisepsis. The reports tend to coincide as to two or three very considerable advantages possessed by Europhen. The chief of these lies in the fact that the iodine component of Europhen is given off slowly, thus presenting fresh, nascent iodine to the tissues, and maintaining the healing processes. A further advantage in this slow development of iodine is that it prevents the possibility of irritant or toxic action. This is why large denuded surfaces, like burns or scalds, may be fully covered with it, and not give rise to any untoward effect. Europhen, in fact, appears to be especially adapted to extensive lesions, since its covering power is five times greater than that of iodoform, while its odor, though faint, is sufficiently well characterized to neutralize the peculiarly disagreeable fragrance attached to all surgical dressings. We note that recent clinical articles in approval of Europhen in the dermatoses, traumatisms and ulcerations, as also in specific lesions, have been written by Drs Allen, Chappell, Shoemaker, Giles, Fernandez, Gilbert Eichler, and many others, who have extended the uses of Europhen to ophthalmology, gynecology and rhinology, as well as the needs of minor and general surgery.

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ORIGINAL COMMUNICATIONS.

SYMPHYSIOTOMY, WITH THE REPORT OF AN OPERATION.

By Barton Cooke Hirst, M.D.

(Read before the Philadelphia County Medical Society, October 12, 1892.)

Symphysiotomy has as remarkable a history as any procedure in surgery. Suggested for the first time in the surgery published by Pineau in 1598, and first performed upon a living woman in 1777, the idea may be said to be three hundred years old, while its practical application dates back more than a century. From the year of the first operation until 1858 symphysiotomy was performed 85 times in different parts of the Continent of Europe and once in England with a mortality of 33 per cent. The frequency of the operation diminished after the first few years, until in 1858 it had practically died out. It was revived, however, in Italy in 1866, and

in the succeeding twenty years 70 operations were performed with a mortality of 24 per cent. Italy continued to be the exclusive field of the operation until a year ago, when it was again tried in Paris by Pinard, whose interest in it was aroused by a visit of Spinelli from Italy. Ten operations have since been performed in Paris, two in Dresden, and one in Strasburg. From January 1, 1886, there have been 52 operations with only a single death, due to septic infection before the operation was undertaken. Twenty-three symphysiotomies have been done already this year, and the last 34 women have all recovered.

We owe the introduction of symphysiotomy into this country to Dr. Robert P. Harris, who, as is well known, has long been interested in the subject, and at the recent meeting of the American Gynecological Society in Brooklyn read a paper tracing the development of the operation, showing by the most laboriously collected statistics the present brilliant results achieved by it, and demonstrating, by the description of typical cases, its utility in labors otherwise insuperably obstructed by a contracted pelvis.

Ten days after Dr. Harris's paper was read, on September 30th, the first operation in this country was performed by Dr. Charles Jewett, in Brooklyn. Three days later it was again performed at the Maternity Pavilion of the University Hospital in this city.

The position of symphysiotomy is now established beyond a doubt. Its modern revival I believe to be the most important advance in obstetric surgery since the general adoption of abdominal section for the treatment of early extra-uterine pregnancy. It is applicable in contracted pelves with a conjugate over 67 mm., and therefore, should be the method employed in almost all cases of the kind in this country, for a greater contraction of the pelvis is rarely seen among us. It should, moreover, almost entirely displace the Cesarean section, with his brilliant record in that field.

There is and will be for some time, perhaps, an objection to the operation from those who have no experience with it, on the ground that sufficient space cannot be thus gained. In answer to this objection is the fact that the pubic bones may gape 7 cm. after their separation, and the statement of Morisani, that the conjugate is thereby increased from 1.3 to 1.5 cm. But an absolutely conclusive answer is furnished by the subjoined clinical records of some typical cases.

Leopold's First Case.—A dwarf, 135 cm. tall, with the following pelvic measurements: Sp. il., 22 cm.; cr. il., 24 cm.; conj. ex., 17½ cm.; conj. diag., 8¾ cm.; conj. vera, 6¾ cm. She had been delivered thrice previously, twice of dead children, once by the induction of premature labor. After a labor of seven hours and twenty minutes, ushered in by rupture of the membranes, symphysiotomy was performed with the head above the brim. In ten minutes the child was extracted with forceps. The head was of normal size (transverse, 9¾, 8¼; circ., 34).

Leopold's Second Case.—A woman, delivered once before by craniotomy. The pelvic measurements were as follows: Sp. il., 22; cr. il., 25; tr., 30½. conj., ext., 16; conj. diag., 8½; conj. vera, 6¾. Labor began in the evening; membranes ruptured seven hours later; operation three hours later, with head above the brim. Extraction of the child in ten minutes with forceps. The head had a circumference of 35¼ cm.

Porak's Case.—A primipara with rhachitic pelvis, conjugata diagonalis being 9.6 cm., and pelvis presenting some asymmetry, very likely from scoliosis. Labor began on June 10th. About twelve hours later the membranes ruptured, and from eight to ten hours afterward the os was completely dilated. The head rested above the brim of the pelvis. Forceps was applied, but all efforts to engage and extract the head failed. The symphysis was opened, and the head extracted "with the greatest ease" by forceps. Recovery.

Freund's Case.—A woman, in labor six days; water drained off for two days. After opening the symphysis the head was delivered in fifteen minutes without instruments. There were two previous deliveries, one of a dead and one of a living child. The pelvic measurements were: Sp. il., 24½; cr. il., 27; tr., 31; conj. ext., 18½; conj. diag., 10 cm.; conj. vera, 8¼. The child's head after birth was found unusually large and hard. B. T., 10 cm.; B. P. 11 cm.; F. O., 12 cm.; M. O., 14 cm.; S. B., 10 cm. Circumference, O. F., 37 cm. Recovery.

Jewett's Case.—The first symphysiotomy in America, performed by Dr. Charles Jewett, of Brooklyn, September 30, 1892. Woman, a native American, primipara, fell in labor September 30, 1 o'clock, a. m.; at 10 a. m. the occiput appeared at the vulva, but was held fast by an approximation of the ischiac tuberosities, reducing the bisischiac diameter to three inches. Nine hours later Dr. Jewett

first saw the patient. The forceps had been vigorously used in vain. Symphysiotomy was performed two and one-half hours later, or eleven and one-half hours after the impaction of the head at the outlet. Delivery was effected by supra-pubic pressure and by shelling the head out with the fingers in the rectum. The woman is now in good condition, but unfortunately the child died twenty-four hours after birth from the compression to which the skull had been subjected during its long impaction in the pelvis.

The University Maternity Case.—A German woman, aged 19 years, pregnant for the first time, was admitted to the University Maternity September 24th. The examination by the resident physician and the students showed the child to be presenting by the head, the back to the right. The pelvic measurements were: Sp. il., 25 cm.; cr. il., 27 cm.; tr., 30½ cm; conj. ex., 18 cm.

The internal examination made by myself just before operation showed the conjugata diagonalis to be 9½ cm.; conj. vera, 7¾ cm. The girl fell in labor Saturday morning, October 1st. The pains, recurring all day, on Sunday became very vigorous. On Monday morning, when my attention was first called to the case, the contraction-ring was high, the uterus stood almost straight out from the body, and the child's head was movable above the superior strait. The membranes were unruptured. By no justifiable degree of force could the head be made to enter the pelvis. The fetal heart-sounds were good. It was evidently, therefore, a choice of Cesarean section, craniotomy, or symphysiotomy. The last was done with the assistance of Dr. R C. Norris and the valuable advice of Dr. R. P. Harris, who kindly consented to be present. The child was delivered with forceps in one hour and four minutes from the time the operation was begun. I purposely took my time, for the os was only the size of a dollar, and was very rigid, so that a more rapid extraction would have seriously injured the cervix. Head measurements: B. T., 7½; B. P., 9; F. O., 12; M. O., 13½; circ., 34. Mother and child are well.

The technique of symphysiotomy is simple and easy. After thoroughly cleansing the field of operation and disinfecting the vagina as well, a short vertical incision is made on the abdominal wall, reaching to about three-quarters of an inch above the symphysis. The attachments of the recti-muscles are severed just sufficiently to admit one finger. The forefinger of the left hand is

passed under the symphysis, and upon this as a guide the curved knife of Galbiati is inserted until its beak projects under and in front of the symphysis. The joint is then cut upward and outward. To avoid injury to the urethra, a metal catheter is inserted and pressed by an assistant downward and a little to the right, while the knife is placed a little to the left; but with Galbiati's knife I should think that there is little likelihood of cutting the urethra or the plexus of veins in its neighborhood. I at first thought that an ordinary probe-pointed, curved bistoury would serve my purpose well enough, but I quickly laid it aside, and was glad to avail myself of Galbiati's knife, which I happened to possess—at the time one of the three, I believe, in the country.

As soon as the joint has been severed the wound should be covered with iodoform gauze, and then the child extracted with forceps, or allowed to be delivered naturally, as seems best in the individual case. I should, I think, almost always prefer the forceps. It is well to have the trochanters supported by assistants during the passage of the child through the pelvis, so that the sacro-iliac joints shall not be injured.

As soon as the delivery is completed the wound is sewed up, the lowest stitch, if desired, passing through the top of the symphysis. How the whole symphysis can be stitched up, as Leopold claims to have done, I do not understand. After closing the wound and dressing it, rubber adhesive strips are placed around the hips and the lower abdomen, and a tight binder applied. The symphysis unites surprisingly soon, and three weeks after the operation the patient can walk as firmly and as well as ever.

There is only one disturbing thought in connection with the introduction in this country of an operation destined to do so much good. The charge of superficiality lies with some justice against us. We are too ready to reach out toward the top without a sufficient basis of solid preparation, and I fear that symphysiotomy may be undertaken by many who cannot correctly measure a pelvis and who have not the experience to decide whether a head can pass through the pelvis in which it is about to enter or in which it is engaged. There is consolation, however, in the reflection that if symphysiotomy should be done needlessly, the results are not likely to be so disastrous as in the case of Cesarean section, which, to my

knowledge, was done several times unnecessarily during the excitement produced among medical men by the improved results of the Sänger operation.

INSANITY AMONG THE NEGROES.

By A. B. Pierce, M.D., Weldon, N. C.

In looking over the *Bulletin* of the North Carolina Board of Health for August, I find in the report of Dr. S. S. Satchwell, of Pender county, the following language: "Insanity among the negroes has assumed the form, almost, of an epidemic." Having had some experience on the subject, I have thought proper to suggest some reflections for the consideration of the profession.

In the first place, "La Grippe" has had its influence as a factor in the disease. I am satisfied I have seen two cases, within the last two years, brought on by "La Grippe." Both cases occurred in women. In one case the duration was only for a few weeks, which yielded to the treatment of alteratives and sedatives—I mean mercury and the bromides, combined with the fluid extract of ergot. The other case was of longer duration, some six or eight months, but was only under treatment a few weeks, and yielded to the same treatment, both cases finally recovering perfectly.

Religious excitement, I find, is another cause of the prevalence of the disease among certain individuals, especially when complicated with derangement of the internal organs. Derangement of the liver and chylopoietic viscera in males who have been worn down by heavy responsibilities, the cares and perplexities of sustaining large families, have been a fruitful source of insanity, especially when existing in weak brains. I treated one case of a man of about 60 years of age, which might come under this head. I gave him the alteratives and bromides, with ergot, and he was perfectly restored in five or six weeks.

As Superintendent of Health of Halifax county for two years, I have had my attention directed to this subject, and I think much expense might be saved the State, and many cases might be treated at our county homes, by the expenditure of a little money by our

boards of county commissioners, in having many of such cases attended before they become confirmed.

I am satisfied I have relieved three or four cases within the last two years in my public and private practice, and I am further satisfied that many could be relieved at our county homes if our officers would make the proper provision for such cases, and it would involve but very little additional expense.

The puerperal condition is another source of mental derangement, complicated with cold and hunger incident to poverty and distress. At some future day I may enlarge on this subject, as it involves much thought for its successful solution.

TYPHOID FEVER AND ICE-CREAM.—That typhoid fever may be caused by infected ice is a fact well known to our readers. Now ice-cream is added to the list of the carriers of the typhoid bacillus. The *Lancet* for September 10th states that Dr. G. Turner has informed the London County Council that he has traced an outbreak of enteric fever to the distribution of infected ice-cream by Italian street vendors.—*N. Y. Medical Journal.*

THE DANGER OF ADMINISTERING CHLOROFORM IN THE PRESENCE OF A NAKED FLAME.—Mr. Charles Martin has remarked frequently, when chloroform was administered, a dry, irritating, spasmodic cough, gradually becoming more severe; smarting of the eyes; a pungent odor, somewhat resembling that of chloride of lime, and accompanied by a stinging sensation in the nostrils, and a sense of oppression in the chest amounting to actual distress; not infrequently changes in the patient's condition which cause great anxiety; sometimes synchronous weakening of the cardiac and respiratory mechanisms; at other times embarrassed and stridulous respiration, cyanosis and weakened pulse; these symptoms necessitating the use of ammonia, nitrite of amyl, or artificial respiration. It is believed that two molecules of chloroform combine in the presence of a flame with one molecule of carbonic anhydride and one of oxygen to produce three molecules of carbonyl chloride and one of water. The former, being unstable, is decomposed into hydrochloric acid and carbonic anhydride. In this hydrochloric acid lies the explanation of the symptoms and of the fact that ammonia is of great value as a restorative. The conclusion is that the operating-room should be heated by hot-water pipes, lighted by electricity, and should be large and well ventilated.—*Birmingham Medical Review.*

SELECTED PAPERS.

A NEW OPERATION FOR PARALYTIC TALIPES VALGUS, AND THE ENUNCIATION OF A NEW SURGICAL PRINCIPLE.

By B. F. Parrish, M.D.

In writing this article at the present time it is my object to present to the profession a principle of surgery which I believe to be entirely original, and one which I believe capable of producing very satisfactory results in a certain number of cases. The utility of the principle is naturally limited by the anatomical arrangement of the tissues involved. Heretofore the deformities resulting from complete paralysis of various muscles have been those which have been the least amenable to treatment without the continuous use of some mechanical support. They have been the ones which have given the surgeon the most bother and trouble and the patient the least hope and satisfaction.

The greater number of such deformities result from anterior poliomyelitis or infantile paralysis. As a rule, a good number of the muscles which are thus paralyzed in infancy recover their power more or less completely after a longer or shorter time. In some instances the child recovers perfectly. Then, again, in some instances all the muscles which were originally affected remain absolutely paralyzed. But the rule is, as I have just stated, and this rule remains unchanged in spite of all the electricity, massage, etc., that the most skillful attendant can give.

The muscles of the lower limbs are those most frequently affected by this disease. The muscles of the leg are more frequently involved than those of the thigh. Of the leg muscles, the anterior and posterior tibials, the muscles of the calf, and the peroneals are, in the order named, I believe, the most frequently affected.

During last winter my attention was particularly drawn to such cases. In my own practice and in the private and hospital practice of Dr. Lewis A. Sayre and Dr. Reginald H. Sayre I was forcibly struck by the number of cases of paralytic talipes valgus in which the extensor proprius pollicis was unaffected. Exactly how often

this muscle escapes in such cases I am unable to say. My observations and researches lead me to believe that in not more than two or three per cent. of the cases where the anterior tibial is paralyzed is the extensor longus pollicis also involved. As Dr. Sayre observes in his admirable book on "Orthopœdic Surgery," the extensor pollicis is often so strong in these cases as to almost or completely disarticulate the bones of the great toe at the phalangeal joint.

In cases where the anterior tibial was completely paralyzed, or so near that it could not perform its function after careful and prolonged treatment by electricity, massage, etc., the idea occurred to me that the strong extensor pollicis might be able to bear part or all the burden of its weaker neighbor. Accordingly, I began a series of experiments on the cadaver to see if my theory could be put into practice.

After isolating both the anterior tibial and the extensor pollicis muscles, I placed the foot in the position of inversion and extension and sewed the shortened tendon of the first to the lengthened tendon of the latter. First I sewed the two tendons together above the annular ligament. Then, placing the foot in the position of extreme eversion, I pulled upon the belly of the extensor pollicis muscle, when the foot returned from its everted position, the arch was raised and the great toe was extended. After thoroughly satisfying myself with this experiment, I then, on another subject, sewed the two tendons together below the annular ligament, and repeated the experiment with equally satisfactory results. Each time after the extensor pollicis had done the duty of the anterior tibial it resumed its own function. Thus satisfied that my principle was correct, the next thing to be done was to put it into practice upon the living subject.

On May 15, 1892, the first operation was done, with the assistance of Dr. Lewis A. Sayre and Dr. Reginald H. Sayre The patient, May C., aged three years and ten months, had had infantile paralysis when eleven months old. At the time of operation both tibial muscles of the right leg were completely paralyzed, giving rise to talipes valgus. All the other muscles which had been involved had recovered. The foot could easily be put in the correct position. The extensor pollicis was moderately strong.

Under chloroform anæsthesia an incision was made over the space between the tendons of the anterior tibial and extensor pollicis

muscles, extending from the annular ligament three inches or three inches and a half upward. Both the tendons were found and isolated. The tendon sheaths were cut away and the foot was inverted and extended so as to shorten up the tendon of the anterior tibial and pull down the tendon of the extensor pollicis. The opposing tendon surfaces were then freshened with the knife and sewed together with a catgut suture for a space of an inch or more, and the wound was closed. The foot was then molded into the proper position and retained there by a plaster-of-Paris bandage, which was worn for a month. When the dressings were removed the wound was found perfectly healed and the foot in a much better position than before the operation. Since the operation I have been using electricity, massage, etc., loosening up the adhesions which naturally formed. From time to time since the first appearance of the paralysis the child has had recurring attacks of the same disease. Since the operation she has had one or two attacks. What will be the final outcome of the case I am unable to say at the present time. I hope, however, to report her case in full at a later date, together with the report of several other cases which I have under observation.

In some cases a better result may be obtained by cutting off the tendon of the extensor pollicis and sewing it on to the common extensor of the toes, and then cutting the anterior tibial tendon and uniting the proximal end of the extensor pollicis to the distal end of the anterior tibial, thereby allowing the extensor pollicis only the function of the anterior tibial muscle. In cases where the posterior tibial is also paralyzed it may be necessary to sew its tendon fast to the tendo Achillis. However, the important principle of grafting tendons and having a live muscle do the work of a dead one is that which I wish particularly to establish in this article. As I have said above, this live muscle may also do its own work in addition to that of its neighbor, or it may have its original function transferred to still another muscle.

Although the anatomical arrangement of the muscles concerned in paralytic talipes valgus probably affords the best opportunity for the employment of the principle, it may be advantageously used in various other deformities where other muscles are paralyzed.

Where the muscles of the calf are paralyzed, thus giving rise to paralytic talipes calcaneus, we may sew the tendo Achillis to the

tendon of the posterior tibial, provided that muscle is good and strong, or it may be attached to either the flexor longus pollicis or the flexor longus digitorum, with a reasonable hope of materially benefiting the patient. Should the common extensor of the toes alone be paralyzed, its tendons might be grafted to the extensor pollicis, to the anterior tibial, or to both. In other cases, too, the principle may be employed.

In any case, if the deformity is not readily reducible, it should be made so before any operation is done upon the tendons. If the tissues causing the deformity are only contracted, then stretch them until the deformity is thoroughly overcome. If the tissues are contracted, then reduce the deformity by cutting tthem. Be perfectly sure that the deformity is thoroughly reduced before you proceed further.

When I had done, upon the cadaver, the operation described above, the only doubt existing in my mind was whether the adhesions resulting from the traumatism done to the adjacent tissues would not be so strong that they could not be got rid of. I am now thoroughly convinced that these adhesions can be loosened by the proper use of electricity and manipulation to the parts. Of course it takes time for this part of the work. The result will surely compensate the surgeon for the time and trouble. At the same time the muscle which has double work to perform should be further developed so as to be equal to its task.

If, on the other hand, the adhesions resisted all efforts of the surgeon, and still stuck the tendons to the surrounding tissues, the arch of the foot would be maintained and the position of the foot improved. And I believe the patient would be able to walk fairly comfortably without the assistance of a brace. If my fellow practioners will employ the principle here laid down, I believe that thousands of patients who are now wearing braces or crutches may be relieved of their deformities and also of their artificial supports.—*New York Medical Journal.*

For Itching, Dubrieuth (*Med. and Surg. Reporter*, September 10) recommends the following application:

℞.—Menthol..... 3 ij.
Olei amygdal..... f ʒ iij. M.

SOME PRACTICAL DIFFICULTIES ARISING IN THE DIAGNOSIS OF PHTHISIS PULMONALIS.

By W. S. Lazarus-Barlow, M.B.Camb., M.R.C.P.

The importance of a correct diagnosis in this, the most common of the serious diseases which the profession is called upon to treat, is so great that it may not be amiss to consider some of the practical difficulties which lie in the path of medical men. I do not propose on this occasion to touch upon the treatment of these unfortunate patients. I leave that in abler hands than mine; but the value, if there be any, in the following remarks, arises from the fact that all of the difficulties I mention have arisen to myself, even in my short experience.

If a patient come to a medical man with a history of having lost two stones in weight during four or five months, if he say that he had brought up a pint of frothy blood, that he sweated copiously at night, that he had a distressing cough and expectorated much thick, yellowish mucus, and that a near relative had died of phthisis, the fears of the medical man are naturally aroused. If on examination dulness be found over one or both upper lobes of the lung, extending downwards perhaps to the third rib or lower, with tubular, cavernous or amphoric breathing associated with many moist fairly large sounds, with increased vocal fremitus and vocal resonance, increased in the case of resonance to bronchophony or pectoriloquy, his fears are realized. The patient is suffering from phthisis and probably from very actively advancing phthisis. But such is not usually the form in which the disease is seen for the first time, and particularly it is not the form in which the general practitioner sees it for the first time. It is rather in one of the other two stages, the earliest or the later stage, though doubtless in a special hospital the typical form is seen only too often. Here I should like to mention the way in which I propose to regard the stages of phthisis. I shall speak (1) of incipient, (2) of advancing, and (3) of receding phthisis. This will eliminate the difficulty which otherwise arises from the use of the stages as (1) the stage in which tubercle is laid down, (2) the stage of excavation, and (3) the vomica condition, with the attendant paradoxes that the "last stage" of phthisis may be the most favorable to the patient and the

"first stage" the most dangerous. This division seems to me to be more nearly allied to the course of the disease and to afford a better explanation of the rarity of cures, as it brings so large a number of cases under the head of advancing phthisis. For the incipient stage is usually an advancing one, and while receding above the disease may be advancing below in the lung. But it is also useful as that upon which a prognosis can be most safely based, for the whole question of prognosis depends on whether, in a patient suffering from phthisis, the disease, as a whole, is advancing or is receding in activity. As the incipient stage not only comes first in order of time, but also in order of importance and of difficulty, we will discuss the difficulties then arising in the diagnosis. The second or true advancing stage, where the disease, having once taken hold of the patient, proceeds by more or less rapid strides, I do not propose to enlarge upon, as it is by far the most easy of diagnosis, cases differing but little, and that chiefly in degree, from the typical case mentioned above. In the first place, then, it is important to recognize that in the very early incipient stage a patient may not—and, indeed, is very likely not to—have any symptoms that lead to a suspicion of lung mischief. He is run down, has perhaps some dyspepsia with nausea, and probably this dyspepsia is obstinate; he is tired and languid and seems to require merely judicious diet, tonic medicine and perhaps a sea trip. Now this train of symptoms is very common and particularly so in young women. It is very common, too, in early summer, after the strain of winter and spring; but it is just at this season of the year that incipient phthisis is particularly likely to begin. I wish to enforce the necessity of not allowing such a patient to leave the consulting-room without an extremely careful examination of the apices of her lungs. Many times, no doubt, we shall find that our suspicions have not been verified; but I am confident that the earliest signs of phthisis are to be found in cases of this kind rather than in any other. Cough, expectorations, hurried breathing, perspiration and hæmoptysis are conspicuous by their absence; but a careful examination may reveal a little dulness in the supra-scapular fossa, a slight roughness, harshness or waviness of breathing, particularly in expiration, perhaps a few clicks, not cleared up by deep inspiration or cough, and we shall congratulate ourselves on having avoided that greatest of errors—the overlooking of the prime cause

in the prominence of extraneous symptoms. I need not say that the importance of careful examination in such cases is essential to the advantageous employment of climatic treatment, and in no stage of phthisis is climatic treatment more advantageous. Perhaps we may not have time to examine for bacilli, but if we do we may be rewarded for our pains. I have notes of one case that occurred when I was house physician at the Brompton Hospital which illustrates this point very forcibly. The patient, a young girl of nineteen, had absolutely nothing the matter with her but some persistent dyspepsia, and to get sputum for examination it was necessary to make her cough. There was even then expectorated a little watery mucus alone, nothing similar to the ordinary phthisical sputum; but bacilli were present in large numbers, and within the three months of her stay signs appeared in the left apex. The fact that bacilli were discovered within the first week after her admission negatives the possibility of her having contracted the disease within the hospital.

We may now advance a little further. We have in early spring, or perhaps even in summer, a patient who has persistent slight cough, with slight glairy expectoration, which has lasted through the winter and has got a little worse; perhaps some lassitude and maybe a phthisical family history. Is the patient the subject of incipient phthisis? To my mind this all-important question is most difficult to solve. Many persons show a liability to cold and their catarrhs go on to a bronchial catarrh. It is particularly in the upper lobes that this bronchial catarrh is likely to persist for some time, and it is especially under the conditions of a prolonged bronchial catarrh that tubercle is likely to be deposited. How are we to determine whether the patient is suffering from a mere bronchial catarrh or from early phthisis? Frankly I confess that I cannot do so with certainty; nothing but time will show with absolute certainty. But there are some indications that may give one or other of these diagnoses more probability. In such a case it is of especial importance that the bodily temperature be taken regularly, and not only night and morning, when it will very likely prove to be normal, but especially in the middle of the afternoon. If the temperature rises in the afternoon from 2 to 5, but is not elevated above the normal night temperature in the evening, or only slightly, I believe the probabilities are greatly in favor of the tuberculous

condition. Next we should notice the effect of causing the patient to cough while we are auscultating. The long inspiration following the expiratory effort of coughing will very possibly clear up, to a large extent, the sticky râles, or the clicks, which in such a patient are heard during ordinary breathing. If, after repeated cough with subsequent deep inspiration, and after several auscultations, these clicks remain, the probability of phthisis is increased. Then there is help in the question as to whether the conditions of the two lungs are similar. If there is no dulness, if the moist sounds may be heard equally low on both sides, if the degree to which they are heard varies from one day to another, and if an occasional click may be heard at the bases, then the probability is in favor of bron chial catarrh. If the sounds are not heard equally low, and particularly if the left apex be more involved, there is increased fear of the condition being phthisis. The question of time will usually clear up the difficulties in these cases, and it is important not to let a patient who has had this condition in early summer enter upon the next winter without carefully arriving at a definite conclusion as to the actual condition of the chest. If, when the patient is examined in autumn, nothing is found, the mystery has solved itself; if the same condition remains, or has advanced, the probability is increased that he is suffering from slowly advancing early phthisis, and by this time other symptoms will probably have supervened, converting the diagnosis from a comparatively doubtful to a comparatively certain one. Nevertheless, I do not ignore the fact that a bronchial catarrh may creep on. At any rate, if we thus exercise caution and take pains over the diagnosis, we shall have nothing to reproach ourselves with in case the more serious condition ultimately manifests itself. We shall in the meantime have given the patient the best chance of escaping that tuberculous disease, and shall have put him under those conditions which militate most against its rapid advance. Such considerations are amply sufficient to compensate us for the extra trouble we have taken in arriving at a diagnosis.

We now come to a very different class of cases, one in which the diagnosis is no less difficult, but which cannot alter our treatment to any considerable extent, though the prognosis may be materially modified. An example of this class is very vividly before my mind, as it was one of the cases given me in my examination by the Censors' Board of the College of Physicians. I will briefly run

over the chief points. A man in the prime of life was admitted to hospital with acute pneumonia; the case never had a definite crisis, but went on for about two months, at the end of which time his condition was as follows: Dulness, with all the signs of fluid in the lower axilla and at the base on the right side, with a few crepitations throughout the lung; temperature irregularly raised, pulse rapid and copious perspirations. It was evident that pleural effusion had been added to the pneumonia, but the question was whether tuberculous mischief was not, after all, underlying the whole. Now the effusion at the right base raised the tone on percussion of the upper lobe, though it was by no means of the Skoda type, and thus abolished a means of comparison with the left upper lobe. The onset of the pleurisy was definite, with rigor and pain. But the onset of a tuberculous pleurisy is most commonly insidious and pain is not a marked symptom. The condition of the patient was quite explicable on either of the three hypotheses: (1) unresolved pneumonia, (2) empyema, and (3) phthisis being laid down on an unresolved pneumonia. There was no tuberculous family history, and yet the man looked of a tuberculous diathesis and his finger-ends were clubbed. He had no previous illness, no history whatever of cough or wasting; he expectorated much frothy mucus. And yet, in spite of all, there was in my own mind, from the first, no doubt—and I may add that the Censor examining also fully concurred in my view—that the case was tuberculous at bottom. Upon what could that diagnosis be upheld in the face of so many contradictory signs? In the first place, there was some harsh breathing at the left apex, and this side was duller on percussion than the right, though I admit the abnormal condition of the right lung gave no satisfactory standard of comparison. Then, next, the finger-ends were clubbed. I do not know how long it takes for obstruction to the pulmonary blood-supply to exist before clubbing is present, but it appeared to me that two months was long enough. Thirdly, the peculiar hopefulness of phthisical patients was present here, and this, with the transparent skin and pearly sclerotic, together with the fact that now, two months after admission, his lung condition was not cleared up, but actually more obscure than ever, led me to the conclusion that phthisis was the disease which would later on, by rapid strides, infiltrate and perhaps excavate the lungs on both sides, but particularly the right; in short, that tubercles

were being laid down throughout the area of an unresolved pneumonia. Here was a case where discovery of the bacillus would have been of inestimable advantage to the diagnosis; but I was assured that examinations of the sputum had been repeatedly made without success.

Closely allied to the above case are those somewhat rare cases of apical pneumonia. They occur more frequently in children, are accompanied with much more pronounced symptoms, and are long in resolving. One must not forget that though tubercle going on to excavation is far less common amongst young children than amongst adolescents and adults, yet that it is not unfrequently met with. If in a case of apical pneumonia in a strumous child we can get but a very poor history of onset, I do not myself see, unless delirium be marked, how we can differentiate the two diseases. Dulness, tubular breathing, bronchophony, and even pectoriloquy, are present in both, and the onset of phthisis in children is often so rapid that the mode of onset in any particular case may help us but little. I think here in many cases, though we must recognize the condition as extremely severe, we are unable to give a definite diagnosis. The case is different from broncho-pneumonia in children; moist sounds and dulness are very widespread, but they are not, as a rule, confined to the apex, being heard in patches all over the chest on both sides, and particularly below the angle of the scapulæ. In children cases of broncho-pneumonia ought not usually to cause any difficulty. But it is different in adults. When broncho-pneumonia is present it may lead to a condition very similar to than occurring in basal phthisis. True phthisical cavities also rarely occur at the bases of the lung, and may be confounded with bronchiectatic cavities. A diagnosis may usually be effected by considering other symptoms—such as the deteriorated condition of health dependent upon some long-standing acute illness which exhausted the vital forces, leading to broncho-pneumonia and the peculiar mode of expectoration with the characteristic odor of the sputum in bronchiectasis. In a short time influenza, leaving broncho-pneumonia, may further increase our difficulties in diagnosis. With regard to morbid growths in the lungs, I can speak with less confidence, as I have met with but few, and those such in which the diagnosis was not difficult, and in any case not to be confounded with phthisis. Primary growths in the lung are very rare, and

generally the organ is invaded from the mediastinum, and presents many points of contrast to what occurs in phthisis. I can nevertheless easily imagine that a localized, easily softening growth might be very difficult of recognition.

Having now briefly pointed out the main conditions found in the lungs which may considerably affect our diagnosis of phthisis, I should like to refer to a few of the more important symptoms which, though often of extreme diagnostic importance in phthisis, are nevertheless not pathognomonic. Firstly, I will deal with hæmoptysis. Dr. Burney Yeo lately said that often hæmoptysis was the most favorable condition towards the cure of phthisis, as it made the patient take adequate precautions. That is no doubt true, but we must primarily be certain that the hæmoptysis is of tuberculous origin. I need not speak of the importance of deciding whether the case be one of hæmoptysis or hæmatemesis. I assume that it is undoubted hæmoptysis. Now in middle-aged and elderly persons hæmoptysis is not so simple a matter as it seems. Most probably, I grant, it comes from a cavity with vessels running in its walls that, being unsupported on one side, have become aneurysmal. But there are two other questions to be disposed of: (1) Does the hæmoptysis depend upon the same causes as lead to cerebral hæmorrhage and epistaxis in the subjects of chronic renal disease? and (2) Does the hæmoptysis arise, as Sir Andrew Clark has shown it sometimes does, in a person of arthritic tendency and quite apart from either renal changes or phthisis? Now renal hæmoptysis, if I may so call it, may be easily diagnosed by the state of tension of the pulse, and above all by deciding by gentle percussion the extent of the cardiac area. The size of the heart will settle the question. If dulness extend up to the upper border of the third rib and beyond the middle of the sternum, I believe phthisis may practically be put out of the question; for the heart in phthisical patients in the immense majority of cases, is below the normal weight and size, while in chronic renal disease, as is well known, it is generally hypertrophied. So far I have seen only one case of Sir Andrew Clark's arthritic hæmoptysis, and in that the amount of blood expectorated was considerable and lasted over several days; the patient was about fifty years of age; there was no renal disease and absolutely no ground for assuming phthisis after many most careful examinations. On the other hand, the patient exactly answered to

the type of case Sir Andrew Clark has described. I must confess, though, that at first I regarded the blood as coming from an undiscovered phthisical cavity. Secondly, wasting may mislead us. There are few diseases in which wasting is so great or so rapid as in phthisis, and yet I remember one case I saw early in 1890 in which most marked wasting took place as the result of mere inanition in a patient suffering from hysteria; she was fifteen years of age and was reported to have maintained life on half a pound of grapes and some raspberry jam for a period of three months. That fact, aided by the knowledge that she was regarded as a marvel in the small village where she lived, caused me to doubt the diagnosis of phthisis publicly given out by the medical man in attendance I examined her most carefully, found no tuberculous mischief, but my provisional diagnosis of hysteria was confirmed in a number of ways that need not now be recapitulated. Removal from the surroundings, strict moral treatment combined with forced feeding and massage, produced in a month so considerable a change in the patient's physical condition that I had great trouble to protect her from the unkind remarks of her neighbors, who had previously been so loud in their expressions of compassion. If she had had a slight "bronchial catarrh" at the same time I should not have felt so certain of my diagnosis. Thirdly, as regards cough and expectoration. It is necessary to remember that cough need by no means be caused by a lung condition. Irritability of the fauces, a pendulous uvula, any irritation about the larynx or in the ear may cause it, and when combined with some expectoration, as it usually is, and of lengthened duration, any of these causes may lead to an unfounded suspicion that phthisis is incipient. The granular condition of the pharynx common in cigarette smokers is a typical example of this. The cough and expectoration will last throughout a summer and give rise to alarm. Whenever, therefore, cough and expectoration are present and chest symptoms are absent or of very small extent, we must not assume the existence of phthisis until we have decided that the throat cannot possibly or sufficiently account for them. There must be a cause for them, I grant, but with patience it will be found, and possibly not in the lungs; while it is as satisfactory to find them dependent upon a remediable throat condition, for example, as it is unsatisfactory not to refer them to a lung condition upon which, notwithstanding the absence of chest

signs, they may nevertheless depend. With regard to the expectoration, some slight reference is necessary. The sputum of phthisis, though typically nummulated, is not always so. Many cases, and particularly those in an early stage, produce only "bronchitic" sputum, and yet bacilli may be found in quantities. This was the character of the sputum in the first two cases I have mentioned above. Next you will find some cases of bronchiectasis and of chronic bronchitis in which the sputum is typically nummulated. with these cases one word of caution is necessary. Cases of chronic bronchitis are not always uncomplicated and often with them coexists an old fibroid phthisis; it is very necessary to inquire for a history of phthisis in early years before one concludes with certainty that the nummulated sputum in an apparently simple case of chronic bronchitis does not come from an old much-contracted cavity. Fourthly, hectic temperatures and sweating are not peculiar to phthisis; I remember at least one case of empyema where such a mistake was made. Remember, also, that apical emphysema may surround and mask an old nodule of tubercle. The importance of searching for underlying quiescent phthisis in chronic bronchitis and emphysema is great on account of the tendency such lesions have to smoulder on and some time or other burst into active growth. Lastly, I should like to mention two small points of practical value in the diagnosis of a cavity, and the first is that, in examining a patient for pectoriloquy or whispering pectoriloquy, it is advisable to make him read from a book rather than say the familiar "one, two, three," or "ninety-nine." If, in taking care that the unoccupied ear does not receive the sounds we are able by means of the auscultating ear to understand the words whispered, the diagnosis of a cavity may be absolute, but when the words are familiar, we are apt to think we hear more than we actually do hear. The second point is that the character of the cough is important; an impulsive cough, seeming to rush up the stethescope, may be heard when pectriloquy is not obtainable, and, I believe, is of extreme value in diagnosis. Such a condition I have noticed in cases of receding or fibrotic phthisis in which a cavity is becoming contracted. As may be easily understood, it is a particularly valuable sign from a prognostic as well as a diagnostic point of view.—*London Lancet.*

THE KRASKE METHOD OF EXTIRPATION OF THE RECTUM.

By Joseph B. Bacon, M.D, Professor of Rectal Surgery in the Post-Graduate Medical School and Hospital, and Surgeon to the Chicago Charity Hospital, the Columbia Free Dispensary, etc., etc.

Gentlemen:—In a recent lecture I gave you a talk upon the method of extirpating non-malignant strictures of the rectum, when other means of treatment had failed. To-day I have the pleasure of showing you the result of extirpation of the rectum and anus for carcinoma by the Kraske method.

The patient, Mr. W., aged 34, druggist, married for many years, of a constipated habit, first noticed trouble in his rectum October, 1891, when at stool a severe hemorrhage occurred, but aftewards nothing troubled him for about three months, when, after taking a strong cathartic in December, he was taken with a profuse hemorrhage from the bowel.

From the date of the second hemorrhage he began to have obscure pains in his back, slimy discharge from his bowel, streaked with blood, and shooting pains about the anus and a more obstinate constipation requiring larger doses of laxatives.

These symptoms all gradually grew more annoying until he thought best to consult a physician for relief in March, 1892, for what he considered hemorrhoids.

His physician examined him and told him he had a stricture of the rectum that was probably malignant, and advised him to consult a surgeon. I examined him for the first time about the middle of April, and found a stricture of the rectum caused by a malignant growth, involving the sphincters and four inches of the rectum, and only dilatable sufficient for my finger to explore the growth.

An immediate operation for the total extirpation of the anus and rectum was advised, at the same time assuring the patient that this relief would probably only prolong his life for from six months to two years.

After thinking the matter over for two weeks, he returned in a much worse condition, requesting that the operation be performed the third day of May, at Macomb, Illinois. There was impaction

of feces extending up above the sigmoid flexure, distending the abdomen, showing a serious tendency to total obstruction with fatal consequences.

Assisted by Drs. Stremmel, Lewis, Sikes, Knappenberger and Blaisdell, I removed the cancerous mass, including the anus and five inches of the rectum, after the method as first described by Kraske, of Germany, in 1885.

The operation was performed as follows:

After the patient was partially under the anesthetic (ether), I forced my index finger through the stricture, and, with the aid of an irrigator, succeeded in breaking up the hard, impacted fecal mass, and by repeated irrigations lasting for an hour, emptied the rectum and colon. I will here state that the complete evacuation of the colon, even at a great loss of time during anesthesia, is very necessary before operating, otherwise the necessary constipating of the bowels for several days after the amputation of the gut will be, as a rule, impossible. The patient was now placed upon his right side and the perineal and sacral region carefully cleansed, and every means employed for an aseptic operation. An incision was made beginning at the third sacral vertebra and extending in the median line to the anus. The soft parts were dissected loose from the two lower sacral vertebræ and coccyx and below down to the rectum, and the left sacrosciatic ligament was detached from the sacrum. The coccyx was now removed and a chisel was used to cut away the left half of the sacral vertebræ, care being taken not to wound the third sacral nerve, it being the main support to the bladder. At this stage of the operation the rectum and cancerous mass was exposed and all bleeding vessels were carefully ligated.

Beginning now at the lower end of the wound, I dissected the mass away as follows: Inserting one blade of a large pair of curved scissors into the wound at a point near the anus, it was pushed laterally into the left ischio-rectal fossa and forward to near the median line, and the intervening tissue severed; a similar incision was made around the right side, thus completely encircling the anus, except at the median line near the urethra.

An assistant now inserted an urethral sound into the bladder, to be used as a guide in dissecting the tumor from the urethra and prevent its walls being wounded. The anus and lower end of the rectum now being freed from the surrounding tissue, a strong pair

of vulsellum forceps were used to hold the tumor firmly and the levator muscles were cut away at a safe distance from the cancer. The peritoneal cavity was then opened and five inches of the rectum removed, leaving the seminal vesicles bare of bladder and small intestines exposed.

The rectum above the cancer, together with the lower end of the sigmoid was dissected loose, drawn down and firmly ligatured into the upper angle of the sacral wound by interrupted sutures of heavy silk, care being taken to have each suture catch up at least one-half inch of rectal tissue, sutures passing through the entire gut wall, to prevent their tearing out before union took place. All bleeding vessels were now ligated and sterilized hot water applied to the wound until capillary hemorrhage ceased. The lower end of the rectum was now packed with absorbent cotton to prevent any of its contents escaping into the wound.

Beginning now with long stripes of iodoform gauze, the whole pelvic wound was carefully packed from before backwards to prevent any fecal discharges entering the peritoneal cavity. This dressing was not changed until the end of five days (the bowels having been constipated by opiates) when the peritoneal cavity was found securely closed in with healthy granulations, and the wound was thus secure from any future infection from fecal discharges. Daily dressing of the wound was required for three weeks, when everything had granulated around the gut, and the patient was able to sit up in bed.

You will now notice that he is well nourished, has no pain, appetite good and there is no symptom of a return of the growth. He has just arrived in the city, kindly coming to present himself before the clinic, after traveling over two hundred miles. It is now four months after the operation. He has perfect continence when bowels are constipated, but of course incontinence when the feces are of a diarrheal character.

You may notice here how firmly the gut is united with the tissues at the upper sacral end of the incision and how healthy the mucous membrane appears. As I pull aside the buttocks somewhat firmly, you see the bowel is filled with solid feces; this he removes daily by warm water irrigation, and completes his toilet with a large cotton pad. I shall have this man go to an instrument-maker and be fitted with a truss pad as invented by Hochenegg, and then he

can go about his work as usual. The age of this patient, thirty-four, is unusual for cancer, and well illustrates how necessary it is never to take a diagnosis for granted, but make a careful search for symptoms; had such been done for this man after the first hemorrhage, his chances for a permanent cure would have been much better.

Kraske's claims for this operation are:

1st. It enables one to remove tumors that are too high up for any other method and considered inoperable.

2d. It enables one to secure all the cut or torn blood-vessels with a certainty.

3d. Where disease is limited to tissue above sphincters, the disease can be cut away and the ends of the gut brought together again, and sphincters preserved with continence.

Some of the dangers in doing Kraske's operation are:

1st. One must avoid wounding the urethra, seminal vesicles and bladder.

2d. In removing a part of the sacrum one must be sure that he does not destroy either of the third sacral nerves, as they mainly control the bladder, and cutting them will cause vesicle paralysis.

3d. He must use care in order to avoid wounding the ureters.

If the ureter is severed, Dr. Fred. Byron Robinson suggests that it may be turned into the rectum. But in his experiments upon dogs he found it generally resulted in a fistula, in which case the urine from each kidney can be examined, and if the kidney connected with the fistula is secreting the smallest amount of urine, it may later be extirpated.

Some of the difficulties in the performance of Kraske's operation may be overcome by carefully laying the rectum bare in making the posterior incision and then inserting the finger around the rectum above the sphincters, and freeing it from the surrounding tissues above and below. This procedure will enable one to push away the ureters, seminal vesicles, bladder and urethra in many cases.

Those of you who are familiar with the German language will be well paid if you read the literature upon this method of operating and its results as published in the *Arch. f. Klin. Chir*, Berlin, 1886, xxxiii, 563–573; *Berlin Klin. Wochenschr.*, 1887, xxiv, 899–904; *Verhandl-d-deuts, Gesellschaft, f. Chirurgie*, Berlin, 1885, xiv, 464–474.—*North American Practitioner.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

☞ *Original communications are solicited from all parts of the country, and especially from the medical profession of* THE CAROLINAS. *Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the* JOURNAL, *by sending the address to this Office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to* R. D. JEWETT, M.D., *P. O. Drawer* 810, *Wilmington, N. C.*

THE NORTH CAROLINA MEDICAL JOURNAL—ITS NEW MANAGEMENT.

With the January issue of this JOURNAL its management will pass into the hands of new owners. The years that have marked its progress since 1875 have been checkered with an honest endeavor to make it the equal of the best monthlies in the United States, and with the many days of trial and vexation that must attend upon such new ventures. Those who have been its steadfast friends from the beginning will recollect that it appeared under the joint control of Drs. Thomas F. Wood and M. J. DeRosset. Both of these gentlemen were admirably fitted for the work they undertook, and the literary abilities they possessed and displayed secured for them an early recognition as competent editors. These were years

of severe trial for the new enterprise, and doubts, made darker by the severity of the struggle, were only to be overcome by the determination that had fixed their purposes when the first issue was sent out. Dr. DeRosset only maintained an active interest in the JOURNAL for a year or two. But Dr. Wood had put his hand to the plough with no intention of giving up, no matter what labor it entailed. In fact, it is known to the writer that for a number of years so scant were the returns that he made good the unavoidable deficit from his own income outside of the JOURNAL. How he labored for its success, and how well he succeeded, is too well known to need recalling now. He earned what he desired and deserved—an enviable position as a journalist and man of letters, and the JOURNAL itself was in all literary matters the reflex of his cultured mind. Bed-ridden and disabled by suffering, Dr. Wood felt the need of help to keep alive the work he loved so well and had so strenuously promoted, and it was at his request that the present editor, with a strong feeling of incompetency, assumed control of the JOURNAL during this long confinement. After his resumption of work and up to his death it was our delightful privilege to be his coadjutor, and in full face of this memory this trust, so flatteringly bestowed on us, is passed over to the new owners, and we bespeak for them a generous patronage and hearty good will, such as has made the latter years of the JOURNAL so prosperous.

Under the new regime its conduct will be changed in a measure. It will depend, in part, for its literary features, upon a corps of editors who have consented to serve. Their names will be, to most of our readers, a sure promise of a continuance of the effort to keep this periodical up to its present standard, with a determination to improve its appearance and size. The following gentlemen have consented to serve as Associate Editors: Dr. Cornelius Kollock, of Cheraw, S. C.; Dr. H. T. Bahnson, of Salem, N. C.; Dr. R. S. Young, of Concord, N. C.; Dr. S. Westray Battle, of Asheville, N. C.; Dr. Hunter McGuire, of Richmond, Va.; Dr. George G. Thomas, of Wilmington, N. C.

For the new management we bespeak a cordial welcome and hearty support. It is intended to make this the JOURNAL of the two Carolinas, and an earnest solicitation is made to the profession in both North and South Carolina and Georgia for such contribu-

tions to its columns as they may find it convenient to send. There will be no lack of zeal in pushing the work to its highest point, and it will deserve the patronage it now enjoys, and endeavor to sustain the character that has secured for it the place as the official organ of the North Carolina Medical Society.

It has been announced in the JOURNAL with its former management that its subscription would be reduced to $2.00 per annum after this number, and the new owners have issued circular letters to all subscribers to the same effect. With his thanks for all the tender appreciation and loving kindness that was shown him who was our friend and loved companion, and for the generous patience of our patrons, that has made this writer's connection with the JOURNAL so pleasant, the present editor vacates his place with many wishes for a merry Christmas season for all of those who may read after him, hoping that, in return for the New Year's greetings the new managers will send out, there will be vouchsafed them a prosperous and happy course in their new work.

GOOD ROADS.

There is no body of men who are, or should be, more interested in the question of good roads than physicians. They are almost constantly riding or driving, and it is often a most important matter that they should make fast time, but which of them has not had occasion to use invectives against the shortsightedness that can see no profit in money spent to improve the roads. Have they not often had to restrict their pace to a slow walk on account of rough and miry or sandy roads, when they felt that the condition of their patients called urgently for haste on their part?

In our State it is the exception to find good roadways even in the cities. One of our progressive cities has recently appropriated a half million of dollars for the improvement of her streets, and, judging from the experience of those places which in the past have done likewise, she will be well repaid for her wisdom.

While the South is notorious for its poor roads, there is no section where good roads would pay a better profit on the investment necessary to establish and maintain them, for we are dependent on

agriculture for our prosperity, and this means an unlimited use of country roads for the marketing of our products. We must haul even longer distances than is necessary in the North, for our market towns are more scattered and railroads are fewer.

Col. Albert A. Pope has issued a circular to College Presidents, Railroad Presidents and others with a petition, which he asks them to sign and aid in getting others to sign it. This petition asks Congress to found in the City of Washington a Road Department similar to the Agricultural Department, for the purpose of promoting knowledge in the art of constructing and maintaining roads, and for a permanent exhibit there in which will be shown sections of roads illustrating various methods of construction and also the best road material and machinery.

We hope the time is not far distant when, through some means, we may be provided with a better system of roads. It will save an immense amount in time, horse-flesh and numerous other items, and so will make us wealthier, wiser and happier. We commend Col. Pope's effort to the attention of the doctors of North Carolina and the South, and ask them to sign the petition.

FALLACY OF CIRCUMSTANTIAL EVIDENCE.—In the October number of the JOURNAL there appeared a paper from Dr. W. O. McDowell, as the Chairman of the Section on Obstetrics in the North Carolina Medical Society. Shortly after this issue was sent out we were greatly surprised by the receipt of a letter from Dr. McDowell stating that, while he would like to have written this paper, he would have to disclaim the authorship thereof, as he had not been able to prepare his report on account of sickness. By the same mail came a letter from Dr. C. M. Poole, Salisbury, N. C., stating that he was the author of the paper, and had read it before the Society six years since. This paper was found with other papers of the 1892 meeting of the Society in Dr. Wood's office, he being the Chairman of the Publication Committee at the time of his death. The paper had never been through the printer's hands, being perfectly clean and having the appearance of being recently written. There had been no other paper presented from this section, and there was no name upon this one to show the author-

ship. Considering these peculiar coincidences the mistake is not so unreasonable as it would otherwise appear. However, we offer our apologies, at the same time congratulating our readers on the appearance of this excellent paper so long overlooked.

DR. CHARLES A. L. REED, Secretary-General of the Pan-American Medical Congress, has issued the Preliminary Announcement, containing a history of the Congress, with the General Regulations to govern all Congresses, the Special Regulations of the First Congress, and a list of the General Officers. The Congress is to be held in Washington City on September 5th, 6th, 7th and 8th, 1893. The By-Laws provide for a Committee on Ways and Means, "whose duty it shall be to devise and execute methods by which the necessary expenses of the Congress may be defrayed." Dr. Reed states that the necessary expenses will be about $5,000, and as there are less than nine months before the meeting, the Committee will have to put their shoulders to the wheel at once. One has only to scan this Announcement to realize the enormous task Dr. Reed has assumed, and we trust the different committees will vary the general rule, and not leave everything for the Secretary-General to do.

FIFTY-ONE METALS are now known to exist. Four hundred years ago only seven were known.—*Mercantile and Financial Times.*

THE *Lancet* being challenged to pronounce upon the dietetic virtues of tripe, says while frequent experiments have proven that tripe stands high in the list of albuminous substances that are quickly acted on by the gastric juice and reduced to a state of solution, the art of the cook, whilst it makes it more savoury, causes it often to be an offence to the stomach. It concludes that, while tripe, as usually cooked, is an excellent dish for strong stomachs, it is, owing to the ingredients added to it, not always so suitable for persons of weak digestion as has been supposed.

BIOGRAPHICAL SKETCH OF DR. JAMES J. PHILLIPS, DECEASED, OF EDGECOMBE COUNTY, HONORARY MEMBER OF THIS SOCIETY AT THE TIME OF HIS DEATH.

By S. S. Satchwell, M.D., of Burgaw, N. C.

(Read before the Medical Society of North Carolina, at Wilmington, May 17th, 1892.)

It was a frequent remark of the illustrious Dr. Valentine Mott, of New York City, himself the Napoleon of surgery in his day in this country, that he was afraid to meet a country physician in consultation. He said that necessity imposed upon country practitioners such habits of reading and study, independence of thought and self-reliance, that he not only found them well posted and abreast with the times, but able to give him information and to make to him valuable suggestions. He said that the average city physician was not the equal, in knowledge and skill, of the observant and well read country doctor. The city practitioner, he said, was accustomed to seek consultation in important cases from the usages of the profession and the customs of society, especially in relation to young city and town physicians. Not so in the country practitioner, who, in his habits of self-dependence, was unable to lean on others, but compelled, even in emergencies, to depend upon his own resources as a general thing. This, he contended, gave the country physician habits of investigation and study, a spirit of self-reliance and investigation, a breadth of view and mental discipline, and a readiness and skill to meet occasions of trial and peril and danger, which give boldness and pluck and success.

One of the ablest and most distinguished physicians and brightest ornaments of the medical profession of our State was that celebrated country practitioner, Dr. James J. Phillips, of Edgecombe. One of the earliest honorary members of this Society, it is meet that, in collecting and preserving our jewels, we should perpetuate his memory, his high abilities and his usefulness.

Dr. Phillips was born in Edgecombe county, March 12th, 1798, and died there April 10th, 1874. His father was likewise born there and died there. His grandfather came from England, and was one of the earliest settlers in our State. The father of our

subject was a man of means at one time of his life, but failed when his son James was 18 years of age. This compelled him to stop his studies, and hence he never had the benefit of a collegiate course He entered the office, as a medical student, of Dr. Cullen Battle (father of General Battle, now of Newbern), and after studying medicine with him, took his course of medical lectures in Philadelphia. He settled in Edgecombe upon his return, and entered at once upon a large and lucrative practice, and remained there until the day of his death. His practice extended throughout Edgecombe into Nash, Wilson, Wayne, Halifax, and occasionally to remoter portions of the State.

He enjoyed public confidence to a rare degree, and his services were assiduously sought far and near, in all difficult and dangerous cases of medicine, obstetrics and surgery. He stood high with his neighboring professional brethren, who cherished for him the highest personal and professional regard, and considered themselves fortunate, at any time, in being thrown into social and professional intercourse with him, and felt themselves benefited by his consultations with them in difficult and dangerous cases. During these earlier days of his laborious practice there were scarcely any railroad facilities of travel, and he was compelled to make his professional visits in his own conveyances. He was a large man, and, when in his prime, was fine looking. Seldom do our eyes behold a more striking personage. As I know from personal observation and experience he would command attention and notice in any crowd he entered and at any time and place.

He was a great reader and always an indefatigable worker. All his life he held to the doctrine, and acted upon the maxim, that industry and energy are essential to success, and that life gives nothing to mortals without great labor. Fond of every department of knowledge and of all the natural sciences, he was especially fond of the science of medicine, and devoted every leisure hour to its study and investigation, and kept abreast at all times with its improvements, its discoveries and its progress. He had great fondness for geology and chemistry, and in his day no one in the State was better posted in this branch. He was learned, not alone in the science of medicine, but in agricultural chemistry. He was a scientific, practical and successful farmer, as so many of our best physicians are, and made money by farming as well as by the practice of

his profession. He was among the earliest, if not the first, physician and farmer of the State, who advocated and demanded that farmers should study and possess themselves of a knowledge of chemistry, that it might be applied to practical agriculture. This advocacy brought about an interesting discussion in 1857 between him and Professor Elisha Mitchell of our State University. It attracted the attention of our leading agriculturists and physicians and other scientists of that day, and Dr. Phillips, as a plain, modest, devoted country physician, gained rich laurels for scientific research and a high order of mental endowments. The views and arguments of Dr. Phillips in this controversy gave a new impetus to the cultivation of the soil on scientific principles. This discussion was brought about in consequence of an address delivered by Dr Phillips before the Edgecombe Agricultural Society in 1852. It was the first address delivered before the first Agricultural Society in North Carolina. It combined, with other causes, in establishing him as a man of original powers and bold, independent thought—able to impress himself—and he did impress himself, upon the times in which he lived. The criticisms and views consequent upon this able address and his discussion with Professor Mitchell, aroused the attention of leading citizens, especially of Edgecombe, and in practical and successful agriculture, brought Edgecombe to the front in farming. Often have I heard the Dancys, of Edgecombe, and the Hon. R. R. and J. L. Bridgers, of that county, speak in warm praise of Dr. Phillips as a pioneer man in that entire section of the State, as a leader of men and measures, both within and without the profession. As a man of high order of intellect and as a practitionsr of rare judgment and skill, and a gentleman in the full sense of the term. No one knew him better and honored and loved him more than our late lamented, honored and usetul member, Dr. William George Thomas, of Wilmington. He had the amplest opportunities of knowing Dr. Phillips while he (Dr. Thomas) practiced in Tarboro, and loved to dwell upon his rare virtues and high character as a man, citizen and physician.

The high qualities of his head and heart, his superiority as a physician, were proverbial in his day. His loyalty to his friends, his great resolution and energy of character, his strict integrity and generous disposition, his readiness to aid poor and meritorious young men, struggling for success, his love of North Carolina and

his devotion to his country, were interwoven in his nature and were leading attributes of his strong character.

He thought for himself and acted for himself, as is the custom of our ablest and best men, and he thought strongly. He possessed directness of thought, and when occasion suggested spoke forcibly and in epigrammatic style. Like most men who think much and think deep, he did not talk much; but to intimate friends who approached him on subjects with which he was familiar, he was free, communicative, very interesting and instructive. An eminent physician said to me a few years ago that, though he was deaf, and in ordinary conversation did not well understand the human voice, Dr. Phillips could diagnose a case of disease quicker by merely looking at it than any medical man he had ever met. He had the capacity of judging correctly of men, whether he passed upon them as patients or as mere casual acquaintances in social life or public company, and this ready knowledge of human nature was of great benefit to him in the affairs of life.

He was a man of much prominence in his section of the State, and a physician of acknowledged eminence and distinction. He was a man of such high intellectual endowments, such freedom from deception and guile, such openhanded hospitality and frankness of manner, and withal so benevolent, generous and public-spirited, that he was honored and esteemed by all who knew him, and when good opinion was worth deserving or seeking. These sterling traits made him hosts of friends, who loved him while living and honored him in death. Such was the make-up of this useful and noble man and physician that he would have attained prominence in any community and eminence in any calling or occupation. Had he settled in some larger city as a medical practitioner, instead of clinging, as he did, with almost idolatrous affection, to North Carolina, he would have attained to shining eminence in the ranks of the foremost practitioners of any of our cities.

He was possessed of that mild dignity of appearance and manners, and yet boldness and decision—that spirit of enthusiasm and air of originality and self-confidence, and that independence and go-aheadativeness which impress men upon the communities in which they live, and make them natural-born leaders of men. He kept pace with the standard publications of the day, and, amid the interruptions and toils of an arduous and self-denying profession, kept his

taste gratified, his mind nourished and his spirit refreshed by habitual recurrence to these rich fountains of instruction and unalloyed pleasure.

Dr. Phillips was happily married to Miss Harnett A. Burt on the 23d of April, 1834. She was the daughter of Mr. William Burt, of Hilliardstown, Nash county, whomoved to Tennessee in 1840, and soon after died.

Fourteen children were the fruits of Dr. Phillips' marriage. Of these four died in infancy: Sallie T., the wife of that brave Confederate Colonel, F. M. Parker, still living in Halifax county, in this State; the Hon. Fred. Phillips, a leading citizen of Tarboro, who for a number of years adorned the bench as a Superior Court Judge of this State; Susan Sims, who intermarried with Mr. J. J. Battle, of Edgecombe county, and died in 1886; James J., who was killed in the last cavalry charge in Virginia, not having heard of the surrender, and who was only 19 years of age; Joseph B, of Nash county, a Representative of that county in the Legislature for the last two sessions; John W., living in Edgecombe county; Harriet A., who intermarried with Hon. B. H. Bunn, member of Congress from the metropolitan district, and a citizen of Nash county; Laura Maud, the wife of John H. Arrington, Esq., of Nash county, and son of the late Hon. A. H. Arrington, former member of Congress from this State; Lizzie P. intermarried with G. C. Battle, who died in April, 1891, now living in Edgecombe county; Walter E., at present a student at Cambridge, Massachusetts, but his home is in North Carolina.

REPORT ON INTUBATION.—Drs. W. Cheatham and W. B. Pusey, Louisville, Ky., have tabulated their cases of intubation as follows:

	Cases.	Deaths.	Recoveries.	Per Ct. of Recoveries.
Cheatham....	56	34	22	39.28
Pusey.....	70	37	33	47. ½
Total.....	126	71	55	43.65

The report does not recite the conditions for which the operation was done, nor does it say even that they were cases where tracheotomy would formerly have been done.

REVIEWS AND BOOK NOTICES.

A Treatise on Diseases of the Nose and Throat, in two volumes. By Francke Huntington Bosworth, A.M., M.D., Professor of Diseases of the Throat in Bellevue Hospital Medical College, New York; Consulting Laryngologist to the Presbyterian Hospital, etc., etc., etc., Volume II; Diseases of the Throat with 3 Colored Plates and 125 Wood-Cuts. Royal Octavo. Pp. 832. Cloth. New York: William Wood & Co., 1892.

The volume before us is worthy of the same high favor which was bestowed upon the first volume when it appeared now, nearly three years ago. Professor Bosworth's apology for the long delay in the appearance of the present volume makes apparent the greater value of the work, in that it has incorporated into it the practical results of his rich experience during that time.

It is getting to be a custom with the general practitioner to consider that diseases of the nose and throat do not come within his domain, and should be relegated to the specialist in this department; so he satisfies himself with giving the patient a routine spray as "recommended by Dr. So-and-so" in the therapeutic column of his medical journal, and contents himself with the thought that he has done all he can, or has the time to do, and that it is not a matter of very great importance any way. A careful study of this work will convince these physicians of their error in this opinion, and will enable them to relieve many cases that would otherwise go on year after year in suffering and discomfort.

The present volume is divided into three sections—Diseases of the Fauces, Diseases of the Larynx and External Surgery of the Throat.

In Section I is included Syphilis, Tuberculosis and the different neuroses and tumors of the fauces. There is also included a chapter on Diphtheria, which goes fully into the history, pathology and etiology of the disease, while 27 pages are devoted to treatment alone.

The clear and comprehensive manner in which the author lays out the course of treatment in each disease is a feature of the book which will especially commend itself to the general practitioner.

Section II, after starting out with a few pages devoted to the anatomy and physiology of the larynx, illustrated by several beautiful photographic reproductions of sections of the parts, devotes a chapter to Laryngoscopy. As regards the question of the duality of croup and diphtheria, the author takes the ground that the two diseases are entirely different and distinct. In the etiology of both diseases he lays special stress upon the importance of a pathological condition of the tonsils as affording a favorable nidus for the lodgement and growth of the specific germs of these diseases. He says: "I do not think that the danger to which a child with enlarged faucial glands is subjected can be over-estimated, in that these large ragged masses of lymphatic tissue lying in the fauces afford a most favorable site for the lodgement of disease germs, whether of diphtheria, croup, scarlet fever, or any of the germs which make their primary entrance into the system in the current of inspired air."

Section III is devoted to the external surgery of the throat—Pharyngotomy, Thyrotomy, Tracheotomy, Extirpation of the Larynx and Resection of the Larynx This section is liberally illustrated with diagrams and three colored plates, each with two figures showing the anatomical relations in each of these operations.

The illustrations are generally good, and the mechanical work, as might be expected, is excellent.

THE DISEASES OF THE STOMACH. By C. A. EWALD, M.D., Extraordinary Professor of Medicine at the University of Berlin, etc. Authorized Translation from the Second German Edition, with Special Additions by the Author. By MORRIS MANGES, A.M., M.D, with 30 Illustrations. New York: D. Appleton & Co., 1892. Royal 8vo. Pp. 497.

This work is the second volume of the Klinik der Verdauungskrankheiten, and has proven so popular that two editions were called for within nine months. The two volumes are entirely independent, but inasmuch as references are made to the first volume the translator has condensed these and included them in his footnotes.

The contents are in the form of lectures based upon stenographic reports of the author's remarks at the Feriencurse für Praktische Aerzte. The translation enjoys an advantage not possessed by the original, in that the author has read the translator's notes and made

many additions, making it to represent practically the third German edition, soon to appear.

Lectures I and II are devoted to the Methods of Examination of the Stomach; Lectures III and IV to Stenosis of the Cardiac Orifice and the Pylorus; Lecture V to Cancer; Lecture VI to Ulcer; Lectures VII and VIII to the Inflammations; Lectures IX, X and XI to the Neuroses; and Lecture XII closes the work with a discussion on The Correlation of the Diseases of the Stomach to those of Other Organs, and the Practical Value of the Modern Chemical Tests.

The illustrations are, for the most part, drawn by the author from original specimens.

Professor Ewald has drawn upon his own wide experience in the conclusions which he here presents, and in view of the large opportunities for personal observation and research with which his opinions are sustained, this work must take a very important place in the literature upon diseases of the stomach. As will be expected of a German writer, he has slighted no part of his subject, but has studied thoroughly the anatomy and nervous supply of the stomach, and its relations to other parts, both normally and pathologically, and the author has been fortunate in his translator, for Dr. Manges has rendered the original into most elegant English, while his excellent foot-notes add not a little to the value of the subject matter. While the author confines himself to the metric system in dosage and measurements, the translator has reduced these, in every instance, to grains and drachms, placed in parentheses.

The name of the publishers is a sufficient guarantee for the excellence of the mechanical work on the book.

GONORRHŒA AND URETHRITIS. By G. FRANK LYDSTON, M.D. Physician's Leisure Library. Geo. S. Davis, Detroit, Mich., 1892. Price 25 cents.

Dr. Lydston has given us in this little monograph a clear and practical discussion of the etiology, pathology and treatment of this common and dangerous disease. He dwells at some length upon the causes of non-specific urethritis, deprecating the often too ready diagnosis of gonorrhœa in innocent persons. His ideas of treatment are based upon wide experience, and are fully up to the latest and most improved plans. The text is richly illustrated by cuts of instruments useful in the treatment of the disease.

THE ELECTRO-THERAPEUTICS OF GYNÆCOLOGY. By AUGUSTIN H. GOELET, M.D., Fellow of the New York Academy of Medicine and of the New York Obstetrical Society, etc., etc. With Illustrations. Geo. S. Davis, Detroit, Mich., 1892.

This work is conveniently divided into two parts, making two numbers of the Physician's Leisure Library. Part 1 is devoted to the description of the various kinds of electricity, and enters minutely into the advantages of the different makes of apparatus. Part 2 treats of the therapeutics of electricity, and we are glad to see that, while the author advocates this method in nearly all the pathological conditions of the pelvic organs, it is not recommended to the exclusion of old established methods of treatment, but he recognizes the necessity of the curette, the snare and the knife in certain cases. Dr. Goelet has been an earnest student in this department, and has offered many useful suggestions and devices.

A POCKET MEDICAL DICTIONARY, Giving the Pronunciation and Definition of about 12,000 of the Principal Words Used in Medicine and the Collateral Sciences. By GEORGE M. GOULD, A.M., M.D. P. Blakiston Son & Co., Philadelphia, 1892.

The title page gives a satisfactory idea of what will be found in this convenient little book. It also contains alphabetical tables of Arteries, with their origin, branches and distribution; of the Nerves, with their functions, distribution, origin and branches; of the Muscles, with their functions, origin, insertion and innervation. Its size is 3½ by 5 inches, bound in red flexible cover. Price $1.00.

ALL AROUND THE YEAR is a neat calendar for 1893, published by Messrs. Lee & Shepard, Boston.

It is printed on heavy card-boards, 4¼ by 5½ inches, gilt edges, held together by rings with a silver chain for hanging. The designs are very pretty and fresh, and are by Mrs. J. Pauline Sunter. The price is 50 cents.

LEONARD'S PHYSICIAN'S POCKET DAY BOOK.

This popular day-book is now in its 15th year of publication. The front part of it is occupied with dose tables and other useful pocket memoranda. It is good for thirteen months, from the first day of any month that it may be begun, and accommodates daily

charges for 50 patients, besides having cash department and complete obstetric records. There are also columns for the diagnosis of disease, or for brief record of the treatment adopted. following each name-space. The book is 7½ inches in length, and 3½ inches wide, bound in flexible covers, and weighs but five ounces, so that it is easily carried in the pocket.

Sent by the Illustrated Medical Journal Company, Detroit, Mich., for $1.00.

THE MEDICAL NEWS VISITING LIST, by Lea Brothers & Co., Philadelphia, is now ready.

It is arranged for thirty patients each week; also sections for clinical history, consultations, obstetric engagements, vaccinations, deaths, addresses and cash accounts, which are arranged with a thumb index for easy reference. Much useful information, and just such as a physician needs daily, is to be found in the 30 pages in the front. Included in this is a table of doses of the commoner remedies in grains or minims and the metric system; also some timely therapeutic reminders.

THE SAMUEL D. GROSS PRIZE.—The first quinquennial prize of $1,000 under the will of the late Samuel D. Gross, M.D., will be awarded in 1893. The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens." It is expressly stipulated that the successful competitor shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. The essays, which must be written in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut St., Philadelphia, before June 1, 1893. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The Committee will return the unsuccessful essays if reclaimed by their respective authors, or their agents, within one year. The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

CURRENT LITERATURE.

TWENTY-FIVE CASES OF EXTIRPATION OF THE UTERUS FOR CANCER—A CONSIDERATION OF ULTIMATE RESULTS.

Dr. Charles A. L. Reed, of Cincinnati, presented to the recent meeting of the American Association of Obstetricians and Gynecologists a report of twenty-five cases of complete vaginal extirpation of the womb for cancer with only two primary deaths—one from shock and one from iodoform poisoning. Of the twenty-five operated upon but fourteen were of more than two years standing, and hence were all that could be discussed with reference to their ultimate results. These fourteen were divisible into two classes of seven each, namely, those in which the disease had existed for more than six months before the operation, and those in which it had existed for less than six months before the operation. Of the first class, i. e., those of more than six months (an average of 10 months) previous duration, all were dead; of the second class, i e., those of less than six months (an average of 4 months) previous duration, only one has since died. One of the recoveries is of more than five years duration. The conclusion from these figures is that cases of cancer of the uterus ought to be remanded for operation as soon as diagnosed.

Dr. Reed looks upon total extirpation as the only operation to be advised or practiced in these cases, the primary mortality from which, in experinced hands, varies from five to eight per cent.

THE HEALING OF WOUNDS BY FIRST INTENTION THROUGH THE USE OF SALICYLATE OF SODIUM.

Dr. J. T. Hall, in the *International Journal of Surgery*, after acknowledging the great decrease in mortality through the modern management of surgical cases, expresses the opinion that there is a large field for still further investigation; the idea of antiseptic sur-

gery is a correct one, but the application of so-called antiseptics is far from being based on true scientific principles.

An antiseptic that has caustic and poisonous properties, one that not only destroys bacteria, but is capable of poisoning the whole system by absorption, is not a true antiseptic according to nature's law of repair, but a so-called mechanical antiseptic. A true antiseptic, when applied to the wounded surface, should stimulate and assist repair by preventing all decomposition, and at the same time destroying all external poisons that would inoculate the wound tissues.

His first experience in the use of salicylate of sodium as a dressing for wounds was due to an emergency where no other antiseptic was at hand. It was in the case of a severe scalp wound. With some salicylic acid from his case and some soda from the patient's kitchen he extemporized a solution of salicylate of soda of about 20 per cent. strength, and, after having repaired the wound with a common sewing needle and some cotton thread, he applied to it a piece of muslin saturated with the solution, and left instructions to keep the dressing moistened with the solution until he returned the following day. On his return he came armed with the regulation apparatus, but found the wound in such excellent condition under the salicylate treatment that he would not change. The stitches were removed on the fourth day, at which time the wound had completely healed by first intention, there having been not a particle of pus, even around the stitches. It has now been twelve years since he first began using it, and he has yet to see the first case that failed to unite by first intention where it was properly used. He has come to regard it as the only true antiseptic dressing he has ever used.

THE RELATIONS OF PELVIC DISEASE TO PSYCHICAL DISTURBANCES IN WOMAN.

At a meeting of American Association of Obstetricians and Gynecologists, at St. Louis, Mo., September 20–23, 1892, Dr. Geo. H. Robé, of Catonsville, Md., read a paper upon "The Relations of Pelvic Disease to Psychical Disturbances in Woman."

The author pointed out the frequency with which bodily condi-

tions influenced mental states. Thus a torpid condition of the intestines, Bright's disease, putrefactive processes in the intestinal canal, etc., might give rise to melancholia and other disorders of the mental functions. It is not irrational to suppose, likewise, that diseases of the female sexual apparatus would have a not inconsiderable influence in the production or perpetuation of mental disorders. As a contribution to the knowledge of the subject the following report was submitted :

In a hospital containing 200 insane women, 35 were subjected to vaginal examination and 26 found with evidences of pelvic diseases. In 18 of these the uterine appendages were removed with the following results :

Sixteen recovered from the operation and two died. Of the 6 recovered 3 have been discharged from the hospital completely restored, both physically and mentally. In 10 considerable improvement followed the operation in both physical and mental conditions, and in 3 the operation was of too recent a date to allow any definite expression of opinion.

The mental disorder present in the 18 cases was melancholia in 6 cases, simple mania in 1, puerperal mania in 4, hysterical mania in 1, periodic mania in 2, hystero-epilepsy with mania in 1, and epilepsy with mania in 3.

The author basing his opinion, upon his experience, concludes as follows :

"The facts recorded demonstrate, first, that there is a fruitful field for gynecological work among insane women; second, that this work is as practicable, and can be pursued with as much success in an insane hospital as elsewhere; and third, that the results obtained not only encourage us to continue in the work, but require us, in the name of science and humanity, to give to an insane woman the same chance of relief from disease of the ovaries and uterus that a sane woman has."

FIFTY-TWO CONSECUTIVE CASES IN WHICH VAGINAL HYSTERECTOMY WAS SUCCESSFULLY DONE.

On June 26th Dr. Jacobs communicated to the Gynæcological Society of Belgium the results of 52 consecutive vaginal hysterec-

tomies, in which all the patients had recovered from the operation. In 11 instances he employed ligatures; in 27 pressure forceps; in 14 cases he removed the uterus by "morcellement." The conditions for which the operations were undertaken were as follows:

Cancer of cervix, 22 cases. Of these, 8 recurred after a period of three years; 6 were lost sight of, 8 are reported cured.

Cancer of body of uterus, 3 cases Of these, 1 recurred in eighteen months, 1 was lost sight of, and 1 is reported cured.

There were 6 cases in which, after all other treatment had failed, vaginal hysterectomy was performed on account of metritis with hæmorrhages, or of painful endometritis. There were 4 cases of myoma uteri, 14 of inflammation of the appendages and pelvic tissues, 1 of malignant adenoma, 1 of puerperal metro-peritonitis, and 1 of suppurating hæmatocele.

[This is a fair index of the rôle which hysterectomy seems to play in the practice of certain continental gynecologists.]

Dr. Jacobs says that for more than a year he has abandoned the method of treating the broad ligaments by ligature in successive portions, and that now he uses pressure forceps only. This, he believes, will be the method of the future, because it is so easy to apply, is so quickly done, and yields such good results. His plan of operating is as follows: After the cervix has been duly drawn down, he divides the vaginal mucous membrane with the thermo-cautery, thus avoiding most of the hæmorrhage which the knife occasions. No sutures are applied to the mucous membrane. He then with the finger strips the cervix as high as possible, and opens the peritoneum in the anterior and posterior cul-de-sacs. According to the indications of each particular case he either turns the fundus down, or else, placing Péan's small straight forceps upon the right and left ligaments alternately, he extracts the womb, usually without hæmorrhage. He uses no antiseptics, but operates with a continuous douche of sterilized water. The uterus being removed, and also the appendages as far as possible, the wound is dressed by packing it with iodoform gauze. Gauze is also packed around the forceps which lie in the vagina. The effect of thus dressing the wound is to prevent prolapse of the intestines, to excite a certain amount of adhesion between the coils of intestine presenting in the wound, and to arrest hæmorrhage. A catheter is left in the bladder. After from two to four days the forceps are

removed without disturbing the dressings. Next day these are withdrawn, and a simple iodoform gauze bandage is packed in the vagina for one day and then removed. After this the patient rises and gives herself four or five times daily vaginal injections of water. The sloughs usually fall off on the ninth or tenth day, and the cure is completed on the 15th, the vaginal opening being cicatrized. Dr. Jacobs attaches great importance to the above details, and to the mode of dressing and after-treatment.—*Annales de Gynécol. et d' Obstét.—Medical Chronicle.*

THE DIGESTIVE FERMENT OF THE CARICA PAPAYA IN GASTRO-INTESTINAL DISORDERS.

Dr. Frank Woodbury suggests the name "caricinum" or "caricin" for the papain of Finckler. Its physiological actions have been established to be upon albuminoids, hydrating them and converting them ultimately into peptones, converting with great promptness starch, the ultimate product being maltose, emulsifying fats, and possessing a direct tonic action upon the stomach, stimulating the secretion of gastric juice or pepsinogen, being also distinctly antiseptic, and given with true antiseptics, like salol, will not leave the digestive action checked. Even corrosive sublimate in dilute solutions does not interfere with its digestive powers. It acts at all temperatures, best in alkaline solution, but also in fluids with an acid or neutral reaction. It has no action upon living tissues, and is positively innocuous when swallowed in any quantity that is likely to be administered. He summarizes its use as follows: 1. In actual or relative deficiency of gastric juice or its constituents. *a.* Diminished secretion of gastric juice as a whole: apepsia, anæmia and deficient blood-supply, wasting disease. *b.* Diminished proportion of pepsin: atonic dyspepsia, atrophy of gastric tubules. *c.* Diminution of hydrochloric acid: achlorhydria, carcinoma. *d.* Relative deficiency of gastric juice: over-feeding. 2. In gastric catarrh. *a.* When there is tenacious mucus to be removed. *b.* When there is impaired digestion. 3. In excessive secretion of acid. To prevent duodenal dyspepsia. 4. In gastralgia, irritable stomach, nausea or vomiting. 5. In intestinal disorders. *a.* In constipation due to indigestion. *b.* In diarrhœa, as a sedative. *c.* In intestinal worms [not verified by author.] 6. In infectious disorders of the intestinal tract. *a.* When there is abnormal fermentation. *b.* As a detergent in cleaning out the débris. 7 In infantile indigestion. The dose is one or two, possibly five grains, either alone or combined with bicarbonate of soda, extract of nux vomica, or both.—*New York Medical Journal.*

A CARD.

To the Medical Profession.

After due reflection I am convinced that by my recent connection as Assistant Physician in the "Keeley Institute" at Greensboro, North Carolina, I have violated Article I, Section IV of the Code of Ethics of the "American Medical Association," adopted by the Medical Society of North Carolina. Therefore I deem it just to my professional brethren to make this announcement of my withdrawal from that "Institute," and also my regret for violation of the Code of Ethics. Respectfully yours,

George A. Renn, M.D.

Raleigh, N. C., November 21, 1892.

Some months since some twenty-five persons in Danville, Va., were bitten by a mad skye terrier. Among the number were a whole family, consisting of father, mother and three children. Lately one child has died with what the doctor considered undoubted hydrophobia, and now the rest of the family, with many others of the victims, have gone to the Pasteur Institute for inoculation.

Railway Surgery at the Pan-American Medical Congress.—A Section of Railway Surgery of the Pan-American Medical Congress has been organized with Dr. C. W. P. Brock, of Richmond, Va., Executive President. A full list of officers has been provided for each of the constituent countries. At the 11th Annual Meeting of the Wabash Railway Surgical Association—the first organization of the kind—Dr. C. B. Stemen, of Fort Wayne, was, by unanimous resolution, requested to prepare a paper on "Organized Railway Surgery," and read the same before the Section on Railway Surgery of the Pan-American Medical Congress At the same meeting Dr. Hal. C. Wyman, of Detroit, offered the following, which was unanimously adopted :

Resolved, That each member of this Association solicit his Congressman to interest himself in legislation in favor of the Pan-American Medical Congress.

CURRENT NOTES.

THE KENTUCKY SCHOOL OF MEDICINE, Louisville, announces that after 1893 three courses will be required of all graduates of their school. We are pleased to note all such advances in higher standards in medical schools.

WE have received from the enterprising firm, Messrs. Renz & Henry, Louisville, Ky., a bound collection of the Addresses and Essays of Dr. G. Frank Lydston. The collection consists of fifteen essays, most of which have appeared in the medical journals. They make a most acceptable volume, and will doubtless be appreciated by those who are favored with a copy.

FOR FROST-BITE, Lassar (*Medical News*) suggests the following:

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THE PHYSICIAN'S VISITING LIST FOR 1893, P. BLAKISTON & Co., Philadelphia—Price $1.00.—This popular visiting list is in its forty-second year of publication It is elegantly bound in flexible leather, with flaps. It is about 4 by 6 inches in size and very light and convenient for the pocket, being printed on thin paper. It is arranged for twenty-five patients each week, and contains the usual spaces for general memoranda, addresses, wants, cash accounts, obstetrical engagements, etc. The front pages are devoted to useful information including a descriptive list of the newer remedies, dose tables in apothecary and metric measure, poisons and antidotes, list of disinfectants and therapeutic hints.

HYDRIODIC ACID IN SPECIAL PRACTICE.—Dr. J. Hobart Egbert (*Amer. Jour. Med. Sciences*), in a practice limited to diseases of the eyes, ears, nose and throat, has obtained good results with this remedy. Although the iodides are very diffusible and are rapidly excreted, yet they are irritant, unstable and offensive to the taste and the stomach; they frequently cause violent coryza, with soreness of throat and eyes, headache, profuse mucous discharge and

renal irritation. Their protracted use leads to anæmia, emaciation and general vital depression. He believes that these disadvantages can be reduced to the minimum by use of the syrup of hydriodic acid, which has a pleasant acidulous taste, can be advantageously combined with the vegetable tinctures and syrups, and contains a definite amount of absolute hydriodic acid; that is to say, each fluidrachm contains as much iodide as five grains of the iodide of potassium.—*Medical Age.*

READING NOTICES.

N. A. SACKETT, M.D., Ewing, Neb., says: "CELERINA I have tested in two cases of nervous headache. One case was a man of about 35 years of age, who has been subject to attacks for a number of years as often as every two weeks. I prescribed an ounce in two ounces of port wine, to take a teaspoonful four times a day. He has not had an attack since, although two months have elapsed. The other was a lady of about the same age, who has had similar attacks for the last five years. She has had no recurrence of the trouble since, and moreover she has passed two monthly periods without the usual dysmenorrhœa, with which she is afflicted at that period. I shall continue to prescribe it in cases in which it is indicated, and will report more fully in future.

WE find since establishing the fact that Elixir Three Chlorides is an exceedingly valuable Alterative and Tonic, it has led to much *silent* substitution; we would therefore kindly ask all physicians to specify Renz & Henry's (R. & H's) to insure a prompt and progressive result, pleasant taste, and avoid any bad features. We specially claim our combination does not exert any toxic effect upon the nerves; its centres are upon the muscles; is not astringent to cause constipation; does not derange the liver; is taken up and assimilated by the animal organism, increasing the hæmaglobin and oxygen required in the blood; assists the digestive functions, and is reliable wherever it is necessary to sustain the forces.

COCA ERYTHROXYLON.—Few drugs have as interesting and remarkable a history as *Cora Erythroxylon.* As a source of cocaine

alone it deserves a conspicuous niche in the herbarium temple of fame.

The coca leaf is the great source of comfort and enjoyment to the Peruvian Indian; it is to him what betel is to the Hindu, kava to the South Sea Islander, and tobacco to the rest of mankind; but its use produces invigorating effects which are not possessed by the other stimulants. From the most ancient times the Peruvians have used this beloved leaf, and they still look upon it with a feeling of superstitious veneration. In the time of the Incas it was sacrificed to the sun, the *Huillac Umu*, or high priest, chewing the leaf during the ceremony; and before the arrival of the Spaniards it was used in Mexico instead of money.

Coca leaves have secured the general recognition in therapeutics which those familiar with their properties have always indicated. Physicians have become convinced by personal observation that the effects attributed to the drug are only what might naturally be expected from the action of so powerful an alkaloid as that contained in the coca leaves.

There are few cases of neurasthenia in which it will not be found useful. Taken after dinner, it serves often to facilitate digestion, and even confirmed dyspeptics find their distressing symptoms relieved by it. It is of especial value in those cases where exhausting mental labor has led to morbid depression of spirits. There is no remedy like it for a fit of the "blues." It relieves the nervous irritability that follows indulgence in excesses of any kind, restoring the capacity for work and giving renewed energy. It acts as a sort of antidote to the effect of opium, alcohol, tobacco or coffee, and judiciously used may even enable one to overcome the morbid craving for any of these stimulants when they have been used to excess. As a remedy for nausea and vomiting from reflex causes, particularly the vomiting of pregnancy, the cordial proves very efficacious. It should be taken a few minutes before eating, and the dose repeated in an hour or two afterwards. Gastralgia is frequently relieved by this remedy, and nervous headaches often disappear under its use. It is of service also in cases of asthma, as an aphrodisiac, emmenagogue, antiperiodic, in drunkenness, in nervous exhaustion, and internally and locally for hæmorrhoids. As a restorative of the circulation in cases of enfeebled heart it is invaluable. We believe Messrs. Parke, Davis & Co. were the first to introduce to physicians of this country this interesting drug, and have made a thorough study of its eligible and therapeutically efficient administration.

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